ONTARIO GOLD JOINT VENTURE

Castor Lake Property

1987 Assessment Report

Prepared for:

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Newfields Minerals Inc.
Westfield Minerals Limited

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Patricia Mining Division
(Sioux Lookout Office)
Claim Map - Seeseep Lake/G-2204

N.T.S. 53B 14/15
90°58'W Longitude; 52°58.5'N Latitude

November, 1987

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SUMMARY

Northern Dynasty Explorations Ltd., as operator for the Ontario Gold Joint Venture, holds 38 contiguous claims north of Eyapamikama Lake in northwestern Ontario. The Castor Lake claims cover significant arsenopyrite-gold mineralization associated with iron formation horizons in a complex 600 metre wide ductile shear zone. This report discusses the results of both the 1985 and 1987 field programs which included geological mapping, soil and rock geochemical sampling and ground magnetic and EM-16 surveying on portions of the claim blocks.

Program Results:

1. Previously discovered gold showings were further exposed and sampled.
2. Several new geochemical anomalous zones were outlined.
3. A detailed study and analysis led to a better understanding of the complex structural geology.

CASTOR LAKE PROPERTY

1987 Assessment Report

1.0 Background Information

1.1 Introduction

A total of 38 contiguous claims is held by Northern Dynasty Explorations Ltd. in trust for the Ontario Gold Joint Venture, north of Eyapamikama Lake in northwestern Ontario. The Castor Lake claims are contained within the same "greenstone" belt and cover similar host lithologies as the Opapimiskan Lake Gold Deposit (Snoppy Lake, reported reserves: 6 million tonnes grading 5.6 g/tonne gold) located 48 km to the southeast which is being developed through a consortium headed by Dome Exploration.

1.2 Location and Access

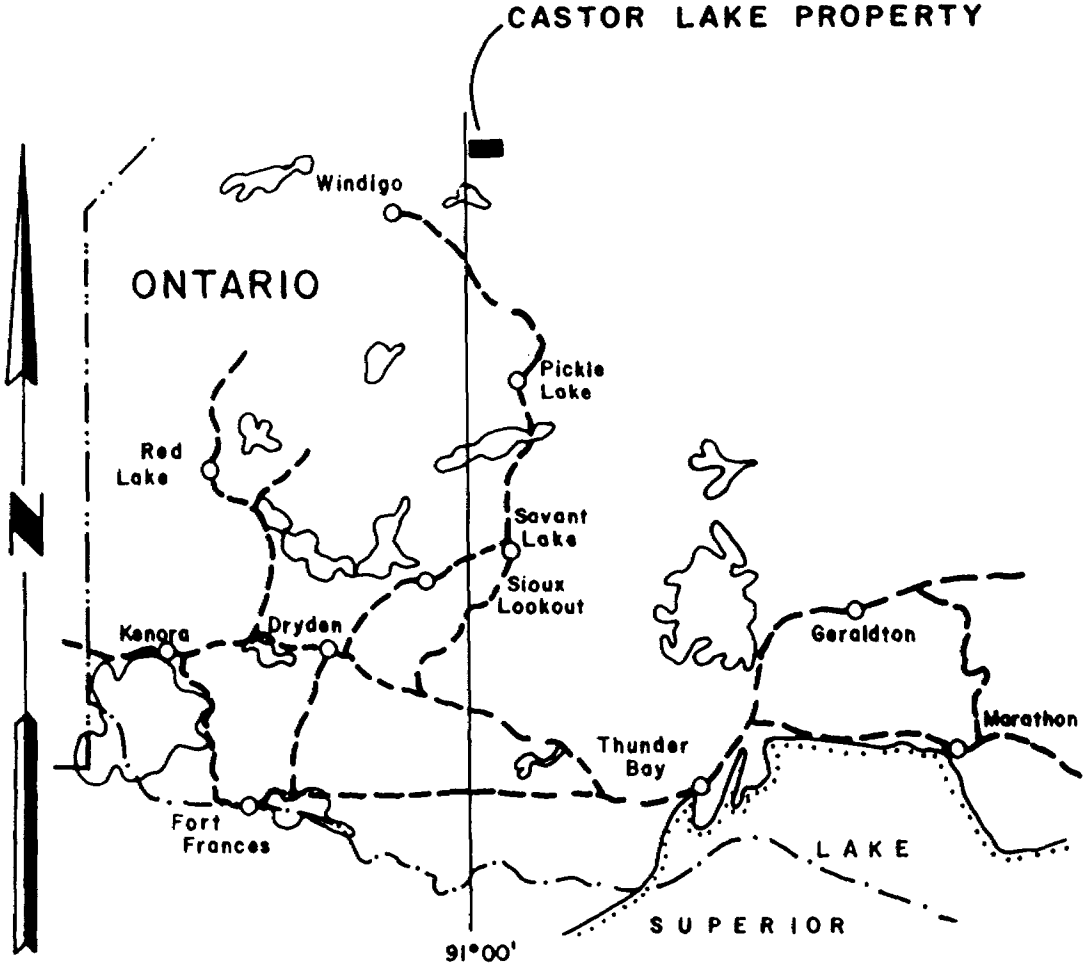
The Castor Lake Property is located approximately 170 km north of Pickle Lake in northwestern Ontario (Fig. 1,2). The center of the claim group is situated at 90°58' W longitude and 52°58.5' latitude on NTS sheet 53B/15. Access to the area in the summer is by float equipped aircraft from Pickle Lake or Windigo Lake (55 km southwest of the claims at the terminus of Highway 599). Winter access is by ski-equipped float plane from Pickle Lake or via the Weagamow Indian Reserve winter road and connecting system of lakes.

1.3 Physiography

The area bordering Eyapamikama Lake is characterized by low-lying muskeg and boulder till. Further to the north, an east-west mafic volcanic ridge is present with relief up to 120 m. Bedrock exposure is moderate to good in many of the low-lying areas. Glacial striae and drumlins are consistently oriented at about 225°Az throughout the belt.

1.4 Claim Status and Titles

The Castor Lake Property, located within the Patricia Mining Division of Ontario, comprises some 38 contiguous mineral claims (Fig. 3, Table 1). All claims are held by Northern Dynasty Explorations Ltd. in trust for the Ontario Gold Joint Venture (Northern Dynasty Explorations Ltd., Newfields Minerals Inc., and Westfield Minerals Ltd.). The addresses of the property holders are listed in Appendix 1.



ONTARIO GOLD JOINT VENTURE

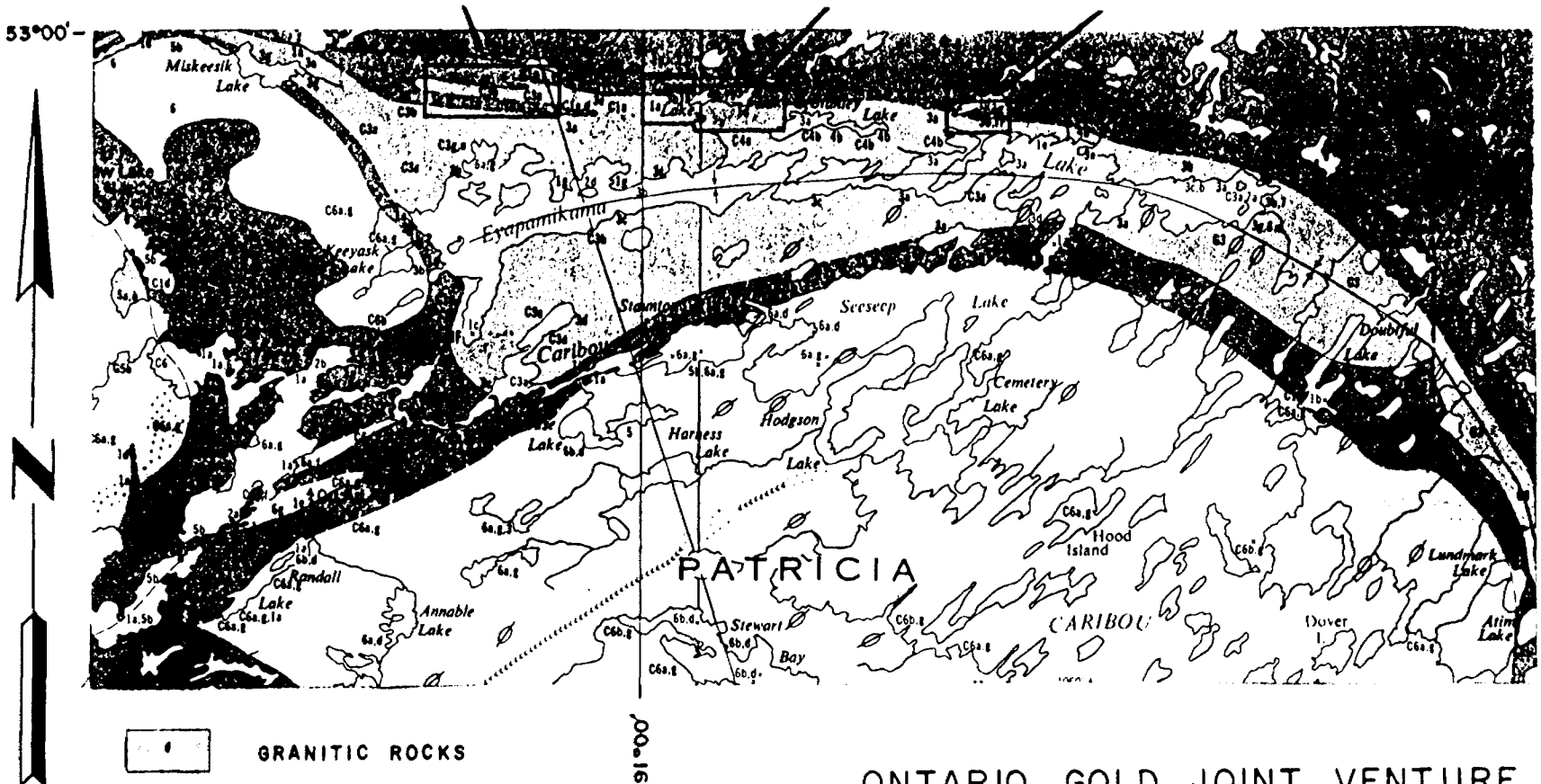
PROPERTY LOCATION MAP

SCALE 1" = 100 mi

NOVEMBER 1987

FIGURE 1

CASTOR LAKE



GRANITIC ROCKS

MIGMATITIC ROCKS

METASEDIMENTARY ROCKS

MAFIC METAVOLCANIC ROCKS

ONTARIO GOLD JOINT VENTURE

EYAPAMIKAMA LAKE

LOCATION MAP

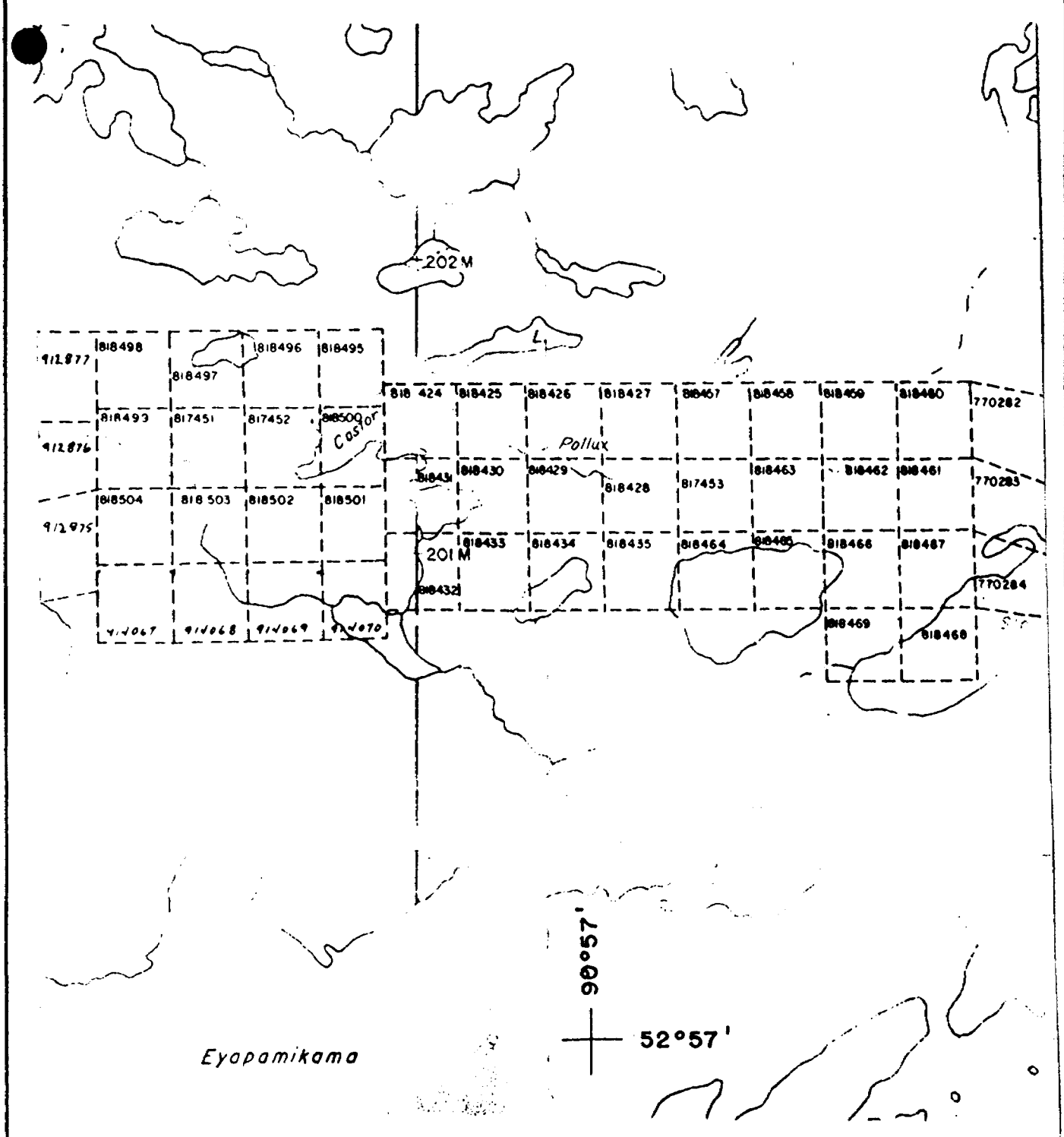
NTS 53 B/14, 15

1 inch = 4 miles

1 : 253,440

NOVEMBER 1987

FIGURE 2



ONTARIO GOLD JOINT VENTURE

CASTOR LAKE CLAIM BLOCK

SCALE 1in = 40 chain = 1/2 mi

SEESEEP LAKE G-2204

JUNE 1987

FIGURE 3

TABLE 1

CLAIMS DATA

Property	Longitude	Latitude	NTS	Claim Map	No. Claims	Claim Numbers	Anniversary Dates
Castor Lake	90 59'W	52 58.5'N	53B/15	Seeseep Lake G-2204	38	Pa 817451-453	Sept. 6, 1989
						818424-435	Oct. 12, 1988
						818457-469	Oct. 12, 1988
						818495-504	Oct. 12, 1988

1.5 Personnel and Survey Dates

Work completed in this report was completed in several phases between 07 July and 26 September, 1985 and between 01 and 30 June 1987. A detailed breakdown of the work periods and the personnel involved is listed in Appendix 2.

1.6 History

1938	Satterly (1941) produced the first geological map of the North Caribou Lake Area (scale 1" = 1 mi.).
?1950's?	Some exploration activity is indicated by old trenches found at the west end of Castor Lake in pyrite and arsenopyrite mineralization and south of Pollux Lake in quartz-tourmaline-arsenopyrite veins. No assessment reports are available.
1960	ODM - GSC (1960) completed a regional airborne magnetometer survey (scale 1" = 1 mi.).
1962	Emslie (1962) carried out ODM reconnaissance mapping (scale 1" = 4 mi.).
1960's	A small drill program was carried out west of McGruer Lake as indicated by an abandoned drill camp and over-grown cat road. No assessment reports are available. A general lack of outcrop in the area suggests the target was an airborne EM conductor.
1971	Thurston et al. (1971) carried out ODM reconnaissance mapping (scale 1" = 4 mi.).
1981	Andrews et al. (1981) conducted a preliminary evaluation of the geology and economic potential of the area for the Ontario Geological Survey.
1984	A large Ontario Geological Survey (OGS) crew mapped the area from Agutua Arm to the eastern end of Eyapamikama Lake. Results of their work were released as Bartlett et al. (1984) and Breaks et al. (1984). Dunlop Explorations, under contract to the Ontario Gold Joint Venture, turned up many new and old gold showings in the area through reconnaissance prospecting.
1985	The Pollux Lake iron formation was the subject of a B.Sc. thesis sponsored by the Ontario Geological Survey. (McLarty, 1985).

1985

Northern Dynasty, operator for the Ontario Gold Joint Venture conducted a geological mapping, geophysical and geochemical sampling program on a 1:5000 scale across portions of the Castor Lake Property.

As operator for the Ontario Gold Joint Venture, Northern Dynasty also conducted a 1,500 foot diamond drilling program to test a zone of massive arsenopyrite mineralization that was uncovered during previous field seasons.

2. Geological Report

2.1 Introduction

Geological mapping at a scale of 1:5000 was conducted over much of the Castor Lake claim group (Plate 1). Technical data statements and procedure records are presented in Appendix 3.

2.2 Regional Geology

The North Caribou "greenstone" belt, located within the Sachigo Sub-Province of the Superior Geologic Province is a narrow arcuate east-west and northwest-southeast trending assemblage of supracrustal rocks with cuspate southeastern and truncated bicuspate western terminations. This belt lies within a large regional assemblage of granite and granitoid gneiss and is largely comprised of variably deformed and metamorphosed mafic volcanic rocks, interflow clastic and chemical sediments and minor sedimentary debris flows.

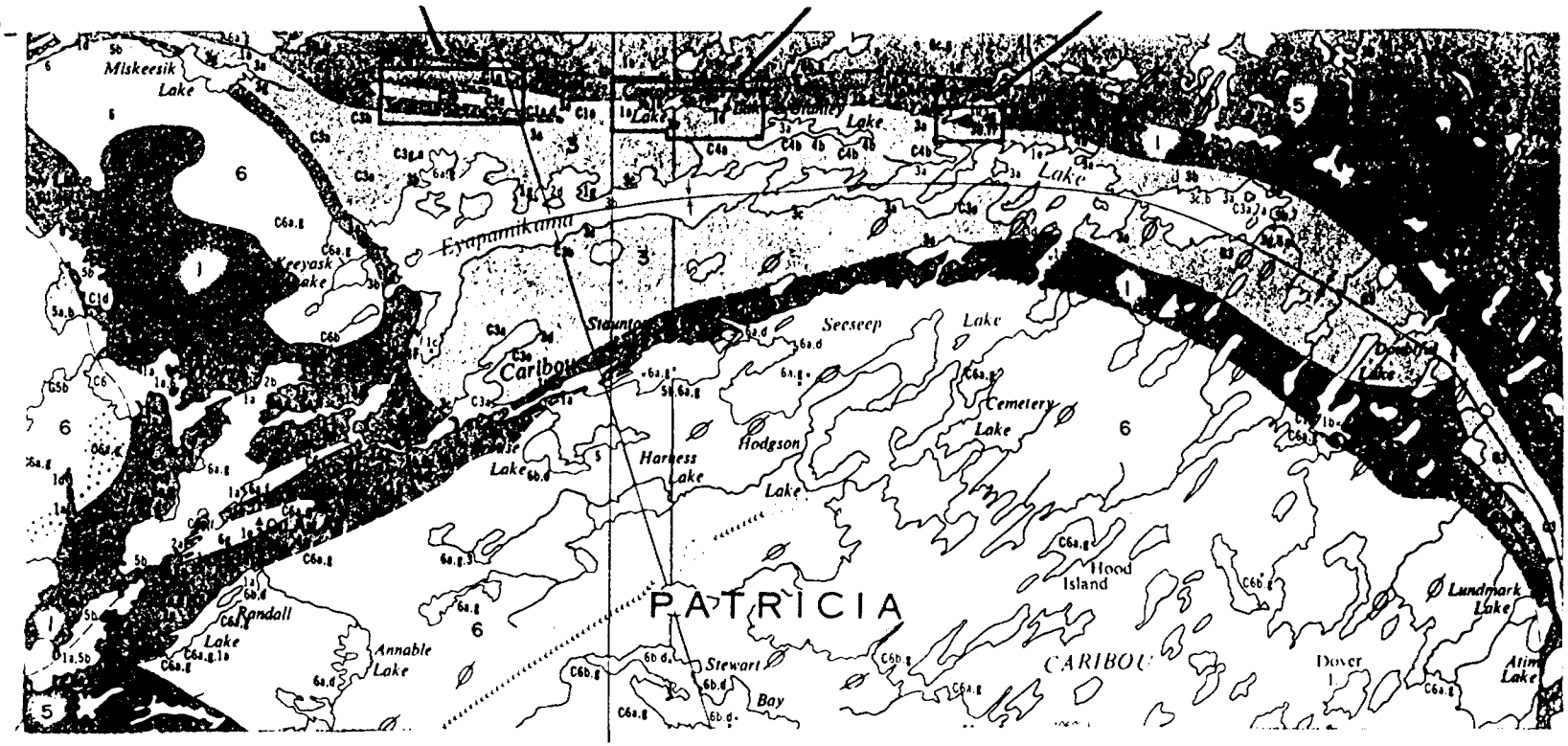
Structural geometry surrounding the Eyapamikama Lake area is characterized by a large east-west trending synclinorium which is contained within an assemblage of pre to syn-kinematic granite rocks and granitoid gneiss. The Castor Lake Property covers a 5 km strike length within a portion of the northern limb of the synclinorium. The primary exploration target within this property is centered around gold-bearing iron formations adjacent to metavolcanic-metasediment contacts within an east-west trending ductile shear zone.

2.3 Local Geology

Lithologies within the Castor Lake claim group are variably deformed and metamorphosed (Fig. 5). A prominent regional layer parallel metamorphic foliation which generally strikes 080°- 100°Az with a subvertical dip has been developed. Northern-most claims are predominantly underlain by massive mafic volcanics, mafic dikes and minor ultramafic pods. These rocks which are composed of chlorite, sericite, chlorite-hornblende and carbonate-actinolite schists pass into a sharp to transitional contact with an east-west trending ductile high strain zone. Rock types within this shear zone are comprised of highly-deformed structurally complex intercalations of alumino-silicate bearing schistose equivalents of pelitic-turbiditic sediments, sedimentary debris flows, and possible agglomerates and tuffs. Also within this zone are several distinct units of complexely folded iron formations which contain varying percentages of magnetite, grunerite, arsenopyrite, pyrrhotite, and pyrite. This zone of complex intercalations and varied lithologies is referred to in this and previous reports as the "Active Zone".

The southern boundary of this shear zone grades transitionally into less deformed pelitic-schists (turbiditic) in which primary sedimentary structures are partially preserved. This sequence is overlain with sharp contact by a unit of moderately deformed schistose mafic volcanics. Within the poorly exposed southern edge of the property this unit is overlain with sharp contact by a package of pelitic (turbiditic) schists and phyllites containing well preserved sedimentary structures.

CASTOR LAKE



6 GRANITIC ROCKS

MIGMATITIC ROCKS

3 METASEDIMENTARY ROCKS

MAFIC METAVOLCANIC ROCKS

ONTARIO GOLD JOINT VENTURE

EYAPAMIKAMA LAKE

REGIONAL GEOLOGY

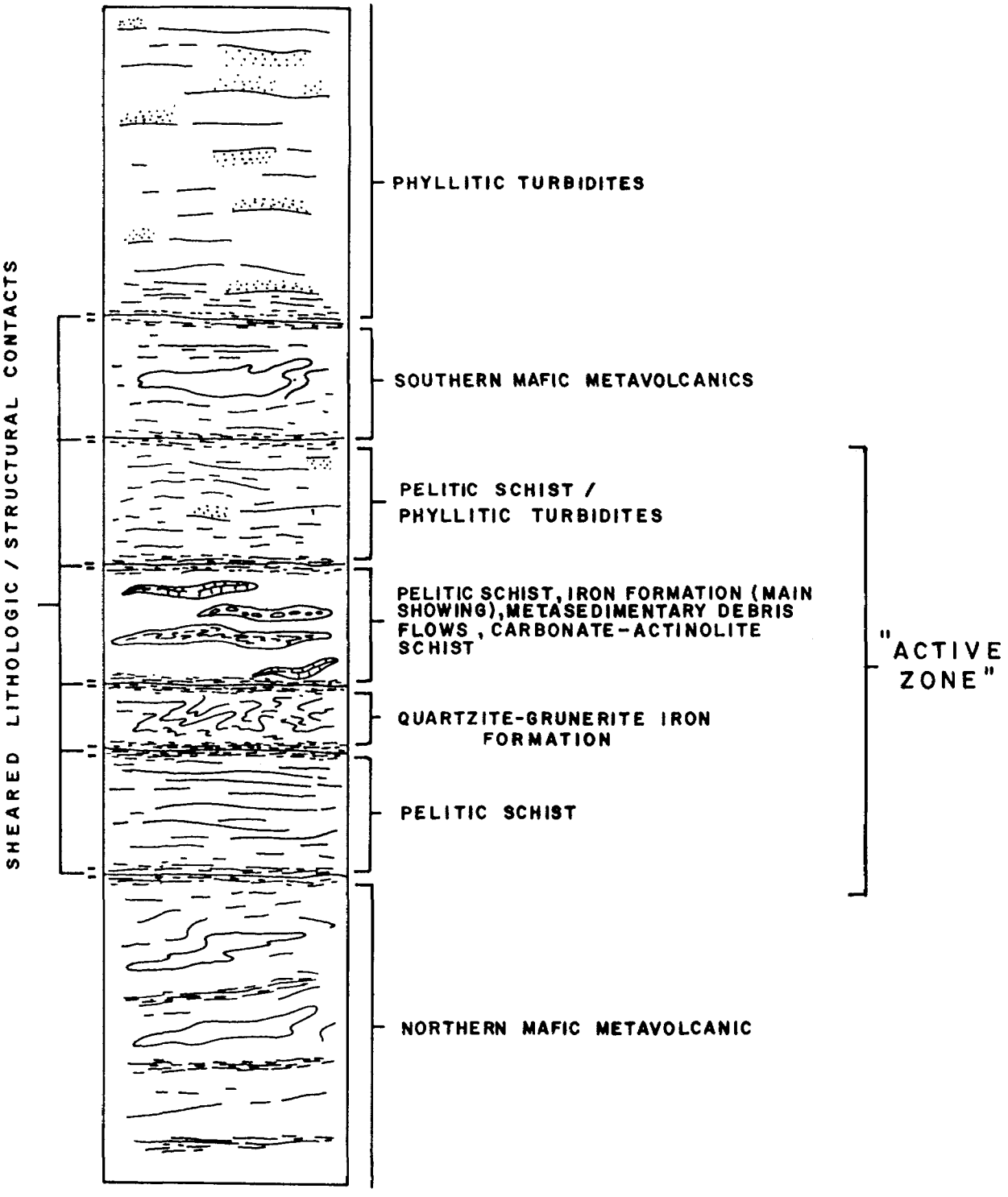
NTS 53 B/14, 15

1 inch = 4 miles

1 : 253,440

NOVEMBER 1987

FIGURE 4



SCHEMATIC STRATIGRAPHIC SECTION

CASTOR LAKE PROPERTY

JUNE 1987

FIGURE 5

2.4 Structural Geology

Rocks within the claim group are variably deformed and metamorphosed within the lower greenschist to middle amphibolite facies. A 600 metre wide high strain zone, characterized by extensive ductile shearing and flattening trends east-west through the property and has been the site of concentrated secondary mineralization.

Three phases of folding can be locally discerned and it is the superposition of these fold phases which has produced the nearly complete transposition of bedding/compositional layering observed throughout the area. The most prominent structural feature is a well developed penetrative regional foliation which appears, within the shear zone, to be axial planar to second phase minor fold geometry and sub-parallel in orientation to bedding/compositional layering. Associated with this folding event are pervasive mineral and geometric intersection lineations which plunge moderately to steeply to the east.

Earliest recognizable deformation occurs as small scale highly attenuated and flattened intrafolial isoclinal folds. Geometry relating to these structures has been largely obscured as a result of subsequent overprinting through shearing and recrystallization. In areas where these early folds are visible and only partially distorted, phase-one geometry is characterized by sub-horizontal fold axes contained within near vertical axial planes. Some minor folds exhibit asymmetric geometry which would indicate that they are most likely parasitic to larger fold structures and very possibly related to the initial formation of the regional Eyapamikama Synclinorium. Associated with these early structures is a well-developed axial planar cleavage. As a result of continued deformation, this cleavage progressively developed into a transposed (primary) foliation of a regional nature such that compositional layers are oriented parallel to it.

Second phase folds, the most prominent deformation geometry within the area, vary in style and form as a function of lithology and proximity to the ductile shear zone. It is the superposition of these folds onto earlier structures and continued high strain that resulted in the formation of this shear zone. The preferred structural location of this zone is most likely a result of the strong viscosity contrast which exists between the competent massive mafic volcanic stratigraphy and less competent pelitic lithologies. Within the "Active Zone", the presence of mixed stratigraphy; composed of iron formations, ultramafics and sedimentary debris flows; provided further anistropy which most likely enhanced the ability of this structural/stratigraphic location to accommodate strain (in the form of shearing) as compared to other locations within this region. Within the shear zone second phase folds are typically disharmonic and tight to isoclinal with an associated well-developed axial planar cleavage (schistosity). It is the combination of this geometry and subsequent strain reactivation along the phase-one foliation which (on a mesoscopic scale) forms the prominent regional foliation observed throughout portions of the Eyapamikama Lake area. This foliation most often appears parallel with compositional layering within and adjacent to the shear zone. Several hundred metres south of this zone, within metapelitic units, an angular discordance between the phase-two cleavage and phase-one foliation is observed and fold geometry becomes moderately open to tight. Up to one kilometre south of this zone the angular discordance is more prominent and fold geometry becomes moderately open. Thus it appears that this axial planar fabric away from the shear zone is not oriented parallel to the primary foliation (bedding/compositional layering) and hence becomes progressively rotated parallel to it as the zone is approached.

2.4 Structural Geology (continued)

Prominent moderately to steeply east plunging mineral and intersection lineations occur widely throughout the area and appear co-linear with second phase fold axes. Many of these minor folds show asymmetries which indicate that they are most likely parasitic to larger scale folds. Second phase deformation is also characterized by extensive boudinage development on all scales within more competent rock units. Competent silica-exhalite (iron formation) horizons form internally deformed enclaves, in-part defining macroscopic-scale boudins enveloped by highly-deformed, less-competent lithologies. Smaller subsidiary shear zones were observed throughout the area along major lithologic contacts and to the north of the major shear zone within massive mafic volcanic units. Secondary silica enrichment is often preferentially located along these subsidiary zones and along the phase-two cleavage. In addition to the shearing which took place during this event, significant flattening strain was also active as evidenced by volcanic pillow and pebble conglomerate clast elongation ratios of 1:10 to 1:100 and 1:10 to 1:75 respectively.

Third phase geometry is manifest as a well developed spaced crenulation cleavage which cross-cuts all earlier structures. This feature is prominently developed within phyllitic turbidites at the southern edge of the property and well into the Eyapamikama Lake area. This geometry is absent to the north.

The latest deformation recognized within the Castor Lake Property is characterized by widespread post-kinematic northeast trending fractures and joints with possible associated brittle faulting.

2.5 Metamorphism

Garnet-biotite mineral assemblage and microtextures are indicative of a prograde metamorphic event of which the peak metamorphic activity occurred just prior to and through phase-two deformation. Observation of helecitic structures and strain shadow geometry within conglomerates and garnet bearing rocks indicate a general overall dextral sense of rotation within the main shear zone. The first appearance of the garnet phase within metapelites outlines a trend subparallel in orientation to the local stratigraphy but detailed sampling and petrographic examination would be required to locate "true" isograd boundaries based on changes in phase-diagram tie-line geometry.

Post-deformational recrystallization and annealing was widespread throughout the area as evidenced by the overgrowth of small euhedral garnets on the deformation fabrics within pelitic rock types. Some breccia textures observed within diamond drill core sections of silica exhalites indicate that in the latter stages of deformation, these silica exhalites behaved in a brittle fashion while surrounding lithologies were in a more plastic state. This geometric dilatancy may in part account for the enhanced secondary mineralization observed within these horizons. From this and other observations it appears that fluid mobilization was most active during and after phase-two deformation.

2.6 Mineralization

Two semi-continuous horizons of internally deformed, banded iron formation crop-out within the Castor Lake Property. They are separated by a 30 to 40 metre thick unit of highly deformed chlorite-quartz-garnet schist (Plate 1). The northern horizon is approximately 35-40 metres thick and extends some 4,000 metres along strike while the southern horizon, approximately 7 meters thick, continues approximately 1,500 metres along strike and contains the "Main Showing".

The principal zone of mineralization and main exploration target centers around a gold-arsenopyrite occurrence located within the southern iron formation near the southwestern end of Castor Lake ("Main-Showing", Plate 1). Massive banded to disseminated arsenopyrite with lesser pyrrhotite and pyrite occur within this quartzite-grunerite iron formation horizon and results from geologic mapping and ground electromagnetic surveys indicate that mineralization within this horizon may extend discontinuously beneath overburden cover to the west and through portions of Castor Lake to the east (Plates 1,2,6). Channel samples taken in 1984 yielded assay results of 2.6 g/tonne over 2.1 metres across the "Main Showing". Results from 1985 channel samples across this showing include the following (Gorzynski et.al., 1985; Plates 11 and 12):

SAMPLES	WIDTH (M)	GOLD VALUES (g/tonne)
E6 & E7	1.8	2.0
E7 & E7 & E8	2.9	1.3
E9 & T103 & E11	3.3	1.0

2.6 Mineralization (continued)

Grab and chip samples from 3 trenched exposures adjacent to the "Main Showing" assay within the range of 1-7 g/tonne gold. Three diamond drill holes (C-85-1 to 3; Plate 1) collared to the north of the trenches intersected the target quartzite-grunerite iron formation. In all three holes, both the thickness of the host iron formation and the abundance of sulphide mineralization are significantly reduced compared to surface values. The drill hole values within the iron formation are as follows:

DRILL HOLE NO.	VERTICAL DEPTH (M)	GOLD VALUES (g/tonne)
C-85-1	39.7	2.3 over 0.39 m
C-85-2	45.1	0.93 over 1.98 m
C-85-3	50.5	0.53 over 0.58 m

Generally, sulphide mineralization is very wispy and disseminated within drillcore in contrast to the massive mineralization seen at surface.

Approximately 300 metres to the northeast of the "Main Showing", soil samples taken from iron-carbonate containing actinolite, quartz-tourmaline veins, and arsenopyrite (up to 5%) have yielded values of up to 2.31 g/tonne gold (E118, Plates 8,9). In this same vicinity additional soil sampling returned values of 3012 ppm arsenic and 15 ppb gold (T102S, Plates 8,9).

To the south of the southern iron formation, numerous 2 to 8 metre wide zones of iron-carbonate-actinolite-schist containing disseminated pyrite (up to 2%) and cross-cutting quartz-actinolite-arsenopyrite veins have been exposed on surface and intersected at depth to the west of Castor Lake by diamond drilling. While these layered carbonate horizons have yielded strong arsenic-gold geochemical anomalies from soil sampling (5255 ppm As and 190 ppb Au, G4S, Plates 8,9) both surface trenching and diamond drilling have returned sub-economic gold values (up to 111 ppb Au over 4.1 m (Y4,5,6, Plates 8,9) and 350 ppb Au over 3.6 m from hole C-85-2). Grid soil sampling to the west of Castor Lake has outlined zones of anomalous arsenic and gold (Plate 7).

Associated with these iron-carbonate zones are numerous bands of carbonate-chromium mica-sericite schist and highly strained quartzose conglomerate containing up to 2% disseminated arsenopyrite and up to 1% pyrite. Surface samples have yielded up to 4372 ppm arsenic and 195 ppb gold in soils (T1S) together with 478 ppm arsenic and 36 ppb gold in rock grab samples (G23, plates 8,9). Diamond drilling returned values up to 75 ppb gold over 1.7 metres (C-85-2).

2.6 Mineralization (continued)

It appears that, where drilled, surface mineralization carries much higher arsenic/gold values than its disseminated subsurface counterpart. This phenomenon may be due in part to disharmonic structural complexity/isolation of the sulphide mineralization or possibly may result in part from from hydrothermal redistribution and dissemination of pre-existing more massive mineralization zones.

Based on sulphide occurrences and textures, conclusions concerning mineralization in the Castor Lake Property are as follows:

1. Mineralization on the property is the product of two separate events.

2. The first event was an extensive syngenetic exhalative event which occurred at the close of volcanism and which produced mineralization in the form of magnetite and grunerite iron formations.

3. This mineralization and its host rocks were then deformed within a major ductile shear zone and in the latter stages of this deformation, a late phase of hydrothermal activity deposited arsenopyrite-gold mineralization within the confines of the shear zone.

Other geochemical anomalies which have yet to be investigated include:

1. Moderate geochemical anomalies (up to 125 ppb Au and 342 ppm As; G16, T104S; Plates 8,9) derived from sheared metapelites and chlorite schists occur immediately north of the southern mafic volcanic package.

2. Limited sampling of sulphidic gabbro (up to 4% pyrite, chalcopyrite, pyrrhotite) and chlorite schists (T106, Y8) near the southwestern end of the property has yielded anomalies of up to 702 ppm arsenic and 75 ppb gold.

3. Rock samples within chlorite/carbonate-actinolite schists to the north of the southern metavolcanic unit (Fig.6; Plates 8,9):

   L32+00W, 0+19-20N : 908 ppm As, 270 ppb Au over 1 m

   L31+00W, 0+20N : 5316 ppm As, 112 ppb Au

   L30+70W, 0+20N : 966 ppm As, 185 ppb Au

3.0 Ground Magnetics Report

3.1 Introduction

Ground magnetometer surveys were run over parts of the property grid during 1985 and 1987. Technical data statements and procedure records of the 1987 survey are presented in Appendix 3. Tie-in readings at magnetometer base stations were generally within 30 gammas and well below anomaly thresholds, hence, no diurnal corrections were calculated.

3.2 Castor Lake Ground Magnetics

Results from the 1987 ground magnetic survey appear on Plate 2. Please note that both 1985 and 1987 results are plotted on Plate 2 to maintain continuity. For 1985 results refer to Gorzynski et al., 1985.

Anomaly CM-4

Location: L1+00W, 2+00N to L1+00E, 2+10N

Peak: 87,780 gammas

This anomaly occurs within the easternmost extension of the "Active Zone" and extends to the east off of the property grid. The anomaly, though completely overburden covered, most likely results from an eastern extension of the grunerite iron-formation south of Pollux Lake (Plate 1). This conclusion is also based upon a coincident EM-16 anomaly. In this region, the iron formation may contain disseminated to massive pyrrhotite, magnetite and/or pyrite.

Many of the new individual weaker anomalies within the northeastern portion of the grid may be attributed to smaller magnetite iron formation horizons contained within the "Active Zone".

4.0 Electromagnetic (EM-16) Report

4.1 Introduction

Ground electromagnetic (EM-16) surveys were run in 1987 over portions of the Castor Lake grid that were not covered in the 1985 survey. Technical data statements and procedure records are included in Appendix 3.

4.2 Castor Lake EM-16

Results of the 1987 survey appear on Plates 4,5 and 6. Please note that both 1985 and 1987 results are plotted on the above Plates to maintain continuity. For 1985 results refer to Gorzynski et al., 1985.

The following results are derived from in-phase, quadrature, and contoured Fraser Filter values. Anomaly locations are listed on Plate 6. For a discussion of 1986 anomalies CE-1 to 4 see Gorzynski et al., 1985.

Anomaly CE-5

Location: L21+00W, 0+30N to L1+00E, 1+30N

This strong and persistent anomaly is coincident with ground magnetic anomaly CM-4 and continues with varying intensity off the northeast end of the property. This conductor, though mostly overburden covered, outlines the continuation of the grunerite-iron-formation south of Pollux Lake. In this region, the iron formation may contain non-uniform disseminated to massive occurrences of pyrrhotite, magnetite and/or pyrite.

Anomaly CE-6

Location: L11+00W, 2+00N to L7+00W, 2+50N

This moderate to weak conductor extends across the entire grid and appears coincident with outcrop of the northern iron formation.

Anomaly CE-7

Location: L17+00W, 2+00S to L1+00E, 0+70S

This weak but persistent anomaly coincides with the contact between the southern mafic-metavolcanic unit and underlying metapelitic rocks. The exact nature of this conductor is not known.

Anomaly CE-8

Location: L45+00W, 2+90N to L41+00W, 2+70N

This weak conductor occurs within the northern mafic metavolcanic package within the northwest portion of the grid. This anomaly is completely overburden covered and its exact nature is uncertain at this time.

5.0 Geochemical Report

5.1 Introduction

Geochemical sampling was completed over various portions of the Castor Lake grid during 1985 and 1987. B-horizon soil samples were taken systematically over selected portions of the grid and where B-horizon samples were not available, A-horizon humus samples were taken. Rock samples and off-grid soil samples were collected at the discretion of the geologists and prospectors. Please note that both 1985 and 1987 results are plotted to retain continuity. Refer to Gorzynski et al. 1985 for 1985 results and discussion.

The -80 mesh fraction of soil samples was analyzed and rock samples were crushed to -100 mesh. All samples were analyzed for gold (fire assay/atomic absorption finish) and 30-element I.C.P. Technical data statements and procedure records are included in Appendix 3.

Threshold values for gold and arsenic in soils were determined by the method of Sinclair (1978) and are listed in Plates 7 and 9.

In general, anomalous results in precious metals, base metals and other elements occur in both A and B soil horizons. The small portion of the anomalies which have been investigated were found in most cases to reflect bedrock mineralization.

5.2 Castor Lake Geochemistry

5.2.1 Soil Geochemistry

The gold and arsenic analytical results for soil samples taken on the grid are plotted on Plate 7. Results for soil samples taken off the grid lines in 1985 and 1987 appear on Plate 9. Appendix 4 contains a complete list of analyses.

Anomaly CC-3

Location: L19+00W, 0+20S to L11+00W, 1+00S

This moderately strong and persistent trend outlines 950 metres of anomalous arsenic within the grunerite iron-formation south of Pollux Lake. This anomaly may extend within an associated arsenophyrite-bearing carbonate-actinolite alteration zone immediately south of the iron formation (see Plate 1).

Other line-cluster and single station anomalies that are yet to be investigated include:

L31-00W, 0+20N : 14265 ppm As/820 ppb Au

L31+90W, 0+20N : 3179 ppm As/590 ppb Au

L32+00W, 0+19N : 3271 ppm As/135 ppb Au

L32+00W, 0+19-20N (trench) : 2430 ppm As/84 ppb Au

Geochemical anomalies ranging to 130 ppb Au from grid soil sampling occur north of the northern iron-formation west of Castor Lake (Plate 7).

5.2.2 Rock Geochemistry

In 1987 several rock samples were taken from pelitic schists and chromium mica-bearing carbonate schists in an area south of Castor Lake. The main mineralized zone is discussed in section 2.6. Gold and arsenic results are plotted on Plate 9. A full list of analyses is presented in Appendix 4.

Anomalous values within 1987 Castor Lake rock samples include:

L30+50W, 0+20N : 373 ppm As/53 ppb Au

L30+70W, 0+20N : 966 ppm As/185 ppb Au

L31+00W, 0+20N : 5316 ppm As/112 ppb Au

L31+90W, 0+20N : 2146 ppm As/43 ppb Au

L32+00W, 0+19N : 2635 ppm As/195 ppb Au

L31+00W, 0+20N : 265 ppm As/810 ppb Au

6.0 References

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1986: Stratabound Gold Deposits in Archean Banded Iron-Formation, Rhodesia; Econ. Geol., v.71, p. 58-75.

Gorzynski, G., Youngman, B.A., Tupper, D.W.
1985: Eyapamikama Lake - North Rim Properties Arseno Lake, Castor Lake, McGruer Lake, 1985 Assessment Report, Patricia Mining Division, Vol. I,II.

Hall, R.S. and Rigg, D.M.
1986: Geology of the West Anticline Zone, Musselwhite Prospect, Opapimiskan Lake, Ontario, Canada; p. 124-136 in Proceedings of Gold '86 Symposium, Toronto, 1986.

McLarty, E.A.
1985: A Detailed Study of the Mineralogy, Structure, and Metal Distribution within the Pollux Lake BIF, Northeastern Ontario; unpublished B.Sc. Thesis.

ODM-GSC
1960: "North Caribou Lake - Airborne Magnetics Map 919G", scale 1" - 1 mi.

Piroscho, D. and Shields, H.
1985: Geology and Gold Mineralization of the North Caribou Lake Greenstone Belt, District of Kenora, in Ontario Geological Survey, Miscellaneous Paper 126, p. 277-286.

Satterly, J.
1941: "Geology of the Windigo-North Caribou Lakes Area", Ont. Dept. Mines Annual Rpt. 49, pt. 9, 32 p. and 2 maps.

Sinclair, A.J.
1978: Applications of probability graphs in mineral exploration. Assoc. Expl. Geochemists, Spec. Vol. 4, 95 pp.

APPENDIX 1

Property Holders

Operator:

Northern Dynasty Explorations Ltd.
844 West Hastings Street
Vancouver, British Columbia
V6C 1C8

Joint Venture Partners:

Westfield Minerals Limited
940-800 West Pender Street
Vancouver, British Columbia
V6C 2V6

Newfields Minerals Inc.
808-750 West Pender Street
Vancouver, British Columbia
V6C 2T8

APPENDIX 2

Personnel Involved in Assessment Work

Castor Lake

Personnel	Work Periods - 1985	1987
George Gorzynski 3836 W. 16th Avenue Vancouver, British Columbia V6R 3C7	08-13 July 26 Aug. - 02 Sept. 02 Oct. - 05 Dec. (Report Prep.)	01-30 June
Bruce A. Youngman 6565 Wiltshire Street Vancouver, British Columbia V6P 5G8	08-15 July 26 Aug. - 02 Sept. 02 Oct. - 05 Dec. (Report Prep.)	
David W. Tupper 2657 W. 2nd Street Vancouver, British Columbia V6K 1K1	08-15 July 26 Aug. - 02 Sept. 02 Oct. - 05 Dec. (Report Prep.)	
Darren C. Elsby 6869 123rd Street Surrey, British Columbia V3W 3T9		01-30 June 10-20 Nov. (Report Prep.)

APPENDIX 3

Technical Data Statements

and Procedure Records

CASTOR LAKE PROPERTY

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOLOGICAL (MAPPING)

Township or Area SEESEEP LAKE / G-2204

Claim Holder(s) NORTHERN DYNASTY EXPLORATIONS Ltd.
844 W. Hastings St., Vancouver, B.C.

Survey Company NORTHERN DYNASTY EXPLORATIONS Ltd.

Author of Report D. ELSBY / G. GORZYNSKI / B. YOUNGMAN / D. TURNER

Address of Author 844 W. Hastings St., Vancouver, B.C.

Covering Dates of Survey 13 JULY - 2 SEPT 1985; 01 - 30 JUNE 1987
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic _____
--Magnetometer _____
--Radiometric _____
--Other _____

Geological 40 AND 20 (SEE ATTACHED SHEET)

Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 30 Nov 1987 SIGNATURE: _____
Author of Report or ~~Agent~~

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

If space insufficient, attach list

(prefix)	(number)
PA	817453
	818424
	818425
	818426
	818427
	818428
	818429
	818430
	818431
	818432
	818433
	818434
	818435
	818457
	818458
	818459
	818460
	818461
	818462
	818463
	818464
	818465

TOTAL CLAIMS _____

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

CASTOR LAKE PROPERTY

GEOLOGICAL (MAPPING)

MINING CLAIMS TRAVERSED (CONT'D)

818466
818467
818468
818469
818495
818496
818497
818498
818499
818500
818501
818502
818503
818504

Castor Lake Property

Geological (mapping)

RE. SPECIAL PROVISIONS CREDITS

- 40 credits applies only to claims PA. # 817451 and 817452 ~ as a magnetometer survey was previously applied for under "special provisions" — and received only 20 credits ~ Therefore we are applying for 40 credits for this geological survey.

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

CASTOR LAKE PROPERTY

Ontario

Ministry of Northern Development and Mines

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOCHEMISTRY (Rock and Soils)
Township or Area SEESEE LAKE / G-2204
Claim Holder(s) NORTHERN DYNASTY EXPLORATIONS LTD.
849 W. Hastings St, Vancouver, B.C.
Survey Company NORTHERN DYNASTY EXPLORATIONS LTD.
Author of Report D. CASEY / G. GORZYNSKI
Address of Author 849 W. Hastings St, Vancouver, B.C.
Covering Dates of Survey OCT -30 JUNE, 1987
(linecutting to office)
Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic _____
--Magnetometer _____
--Radiometric _____
--Other _____
Geological _____
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P.A.	817451
	817452
	817453
	818425
	818428
	818429
	818430
	818431
	818458
	818461
	818462
	818463
	818464
	818465
	818466
	818467
	818468
	818497
	818498
	818499
	818501
	818502

TOTAL CLAIMS 23

If space insufficient, attach list

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION / RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

CASTOR LAKE PROPERTY

GEOCHEMISTRY (Rock AND Soils)

MINING CLAIMS TRAVERSED (CONT'D)

PA. 818503

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken SEE FIRST PAGE

Total Number of Samples 539

Type of Sample 529 Soil ; 10 Rock
(Nature of Material)

Average Sample Weight 0.3 kg

Method of Collection MATTOCK , ROCK HAMMER

Soil Horizon Sampled A, B_1, (B_2), C

Horizon Development A_1 - A_2 - B_1 - B_2 - C

Sample Depth 1 - 120 cm

Terrain BEDROCK , GLACIAL TILL , MUSKEG, SWAMP

Drainage Development POOR

Estimated Range of Overburden Thickness 0 - 50 m ?

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis
Soils : -80 MESH
Rocks : -100 MESH PULP

General INDUCED CATION PLASMA (I.C.P.) 30 ELEMENT ANALYSIS
0.5g SAMPLE DIGESTED IN 3 ml of 3-1-2 HCl - HNO_3 - H_2O at 95°C FOR 1 hour, THEN diluted to 10 ml with H_2O FOR I.C.P. ANALYSIS

ANALYTICAL METHODS

Values expressed in: per cent ☑, p. p. m. ☑, p. p. b. ☑

(Cu), (Pb), (Zn), (Ni), (Co), (Ag), (Mo), (As) (circle)

Others SEE BELOW

Field Analysis (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (_____ tests)
Name of Laboratory ACME ANALYTICAL LABS.
Extraction Method Aqua Regia
Analytical Method See Below
Reagents Used

General OTHER ELEMENTS : Mn, Fe, U, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Au

Au : 10 gm SAMPLE - FIRE ASSAY WITH AN ATOMIC ABSORPTION (AA) FINISH

CASTOR LAKE PROPERTY

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOPHYSICAL (GROUND MAG)
Township or Area SEESEEP LAKE / G-2204
Claim Holder(s) NORTHERN DYNASTY EXPLORATIONS Ltd.
844 W. Hastings St., VANCOUVER, B.C.
Survey Company NORTHERN DYNASTY EXPLORATIONS Ltd.
Author of Report D. ELSBY / G. GORZYNSKI
Address of Author 844 W. HASTINGS St., VANCOUVER, B.C.
Covering Dates of Survey 01 - 30 JUNE, 1987
(linecutting to office)
Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	--Electromagnetic	
	--Magnetometer	
	--Radiometric	
ENTER 20 days for each additional survey using same grid.	--Other	
	Geological	
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 30 Nov 1987 SIGNATURE: Daniel C. Elsby
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P.A.	818461
	818467
	818468
	818466
	818462
	818495
	818458
	818465
	818425
	818431
	818424
	818496
	818452
	818497
	818499
	818498
	817451
	818503

If space insufficient, attach list

TOTAL CLAIMS 18

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 512 Number of Readings 590 (READINGS TAKEN BETWEEN 10M STATIONS)

Station interval 10 METRES Line spacing 200 METRES

Profile scale

Contour interval 2000 GAMMAS

MAGNETIC

Instrument SCINTREX MFD-2 DIGITAL FLUXGATE MAGNETOMETER

Accuracy – Scale constant ± 10 GAMMAS (HAND HELD)

Diurnal correction method ONE HOUR BASE STATION ~ TIE-INS WERE ALL WITHIN

Base Station check-in interval (hours) ± 30 GAMMAS – NO CORRECTION APPLIED

Base Station location and value MAIN BASE STATION @ 31+50W, 14+50N

READING : 59,800 ± 30 GAMMAS

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency (specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

CASTOR LAKE PROPERTY

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GROUND GEOPHYSICS (EM-16)

Township or Area SEESEEP LAKE / G-2204

Claim Holder(s) NORTHERN DYNASTY EXPLORATIONS Ltd.
844 W. HASTINGS St., VANCOUVER, B.C.

Survey Company NORTHERN DYNASTY EXPLORATIONS Ltd.

Author of Report D. ELSBY / G. GORZYNSKI

Address of Author 844 W. HASTINGS St., VANCOUVER, B.C.

Covering Dates of Survey 01-30 JUNE, 1987
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	
--Magnetometer	
--Radiometric	
--Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 30 NOV 1987 SIGNATURE: D. C. Elsby
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P.A.	817451
	817453
	818428
	818429
	818434
	818435
	818457
	818458
	818461
	818462
	818463
	818464
	818465
	818466
	818467
	818468
	818497
	818498
	818499
	818501
	818504

TOTAL CLAIMS 21

If space insufficient, attach list

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 879 Number of Readings 879

Station interval 10 metres Line spacing MAINLY 100-200 metres

Profile scale One centimeter = 10% or 10°

Contour interval FRASER FILTER @ 20

MAGNETIC

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument GEONICS RONKA EM-16

Coil configuration TWO PERPENDICULAR RECEIVING COILS

Coil separation —

Accuracy ±1%, ±1°

Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency 24.0 KHz (TRANSMITTER - CUTLER, MAINE, U.S.A.)
(specify V.L.F. station)

Parameters measured IN-PHASE SIGNAL (DEGREES) AND QUADRATURE (PERCENT)

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION
RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX 4

Chemical Analyses

CASTOR LAKE PROPERTY

SOIL GEOCHEMICAL ANALYSES

EXPENDITURE CREDITS

1987

Total Amount as per enclosed invoices:

$5,945.00

Total Expenditures a claimed on 06 September, 1987 "Report of Work":

$2,100.00

The difference in the two figures will be applied in a separate "Report of Work" filing following this report.

ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158 852 East Hastings St., Vancouver, B.C. V6A 1R6

File: 87-2082

Date: JULY 10 1987

NORTHERN DYNASTY EXPLORATION
844 W. HASTINGS ST.
VANCOUVER B.C.
V6C 1C8

TERMS:
NET TWO WEEKS -
1½% PER MONTH CHARGED ON
OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
516	ICP ANALYSIS @	6.00	3096.00
516	GEOCHEM AU ASSAY @	4.25	2193.00
516	SOIL SAMPLE PREPARATION @	.75	387.00
84	PULVERIZING SAMPLE @	1.50	126.00
			5802.00
	WESTERN CANADIANS #860392		100.13
	TOTAL		5902.13

APPROVED FOR PAYMENT Agent - Castle Gas

PLEASE PAY LAST AMOUNT

Castor Lake Soil
Geochemical Analyses
Expenditure :
$ 5802.00

ACME ANALYTICAL LABORATORIES LTD.

PHONE: 263-3158 852 East Hastings St., Vancouver, B.C. V6A 1R6

File: ~~87-2101~~

Date: JULY 6 1987

ARSENIC

TERMS:
NET TWO WEEKS -
1½% PER MONTH CHARGED ON
OVERDUE ACCOUNTS.

NORTHERN DYNASTY EXPLORATION LTD.
844 W. HASTINGS ST.
VANCOUVER B.C.
V6C 1C8

NUMBER	ASSAY	PRICE	AMOUNT
23	ICP ANALYSIS @(13 SOIL) + CASING — 78.00 (SOILS) / 60.00 (ROCK)	6.00	138.00
10	GEOCHEM AU BY FA+AA @ } CASING	5.75	57.50
13	GEOCHEM AU ASSAY @ — SOIL	4.25	55.25
10	ROCK SAMPLE PREPARATION @	3.00	30.00
13	SOIL SAMPLE PREPARATION @	.75	9.75
	TOTAL		290.50

PLEASE PAY LAST AMOUNT

CASTOR LAKE SOIL GEOCHEMICAL
ANALYSES EXPENDITURE:

78.00
55.25
9.75

$ 143.00

NORTHERN DYNASTY EXPLORATIONS LTD.
844 W. HASTINGS STREET PHONE (604) 682-3727
VANCOUVER, B.C. V6C 1C8

1349

July 28 19 87

PAY TO THE ORDER OF ACME ANALYTICAL $ 7,250.01

Seven thousand, two hundred and fifty ---------------------01/100 DOLLARS

NORTHERN DYNASTY EXPLORATIONS LTD.

PER

PER

BANK OF BRITISH COLUMBIA
999 WEST HASTINGS ST. PH. 668-4630
VANCOUVER, B.C. V6C 1M3

0001349 00020-016 30632-6-02 0000725001

07120 - 003

DEPOSIT ONLY TO THE CREDIT
ACME ANALYTICAL LAB.
ACCOUNT NUMBER

30 JUL 87

Castor Lake Property - 1987
Expenditures on Assays and Analyses
$ 5945.00

Remaining Dollars spent on transportation and unrelated analyses

CASE 2

ACME ANALYTICAL LABORATORIES 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCK P2-SOILS AU** ANALYSIS BY FA+AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUN 30 1987 DATE REPORT MAILED: July 6/87 ASSAYER..D. Toye..DEAN TOYE, CERTIFIED B.C. ASSAYER

NORTHERN DYNASTY File # 87-2101 Page 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU** PPB
L32+00W 0+20N R-1	1	127	13	20	1.0	116	26	65	.77	265	5	ND	3	6	1	10	3	12	.34	.007	9	43	.08	32	.01	2	.83	.12	.09	1	810
L32+00W 0+20N R-2	1	46	7	19	.1	169	24	4376	1.80	263	5	ND	1	23	1	2	2	13	9.27	.010	8	99	1.31	46	.03	2	1.40	.06	.05	1	17
L32+00W 0+19N R-1	1	47	11	9	5.0	163	34	128	.54	2635	5	ND	3	18	1	11	3	12	.87	.015	16	92	.20	61	.01	2	1.55	.26	.12	1	195
L32+00W 0+19N R-2	1	10	14	16	.2	144	23	940	.62	471	5	ND	3	55	1	2	2	18	6.29	.020	11	173	.69	55	.02	2	4.21	.26	.21	27	56
L32+00W 0+10N ROCK	1	55	26	116	.1	212	26	5701	8.40	144	5	ND	2	29	2	2	2	41	6.73	.012	6	98	2.21	146	.03	2	1.91	.11	.14	1	13
L31+90W 0+20N R	1	28	5	27	.3	151	31	2149	1.11	2146	5	ND	3	17	1	4	2	12	2.72	.012	9	77	.52	36	.01	2	1.40	.08	.09	1	43
L31+50W 0+19N R	1	7	14	24	.1	90	13	295	.79	162	5	ND	4	51	1	2	2	19	4.40	.020	11	120	.79	51	.02	2	5.06	.38	.30	3	26
L31+00W 0+20N R	1	43	9	23	.3	353	58	434	1.93	5316	5	ND	4	57	1	2	2	69	3.20	.014	7	465	1.12	116	.10	2	5.30	.60	.08	4	112
L30+70W 0+20N R	2	85	12	13	2.2	153	25	41	.95	966	5	ND	1	4	1	8	2	6	.10	.007	4	37	.03	36	.01	3	.38	.04	.11	1	185
L30+50W 0+20N R	1	245	30	42	1.1	251	46	99	2.03	373	5	ND	3	15	1	4	2	20	.85	.010	9	106	.41	36	.01	2	1.94	.20	.07	1	53
STD C/AU-R	20	63	42	137	7.6	68	29	1047	4.17	41	21	9	35	50	18	14	22	64	.50	.092	42	59	.90	183	.08	35	1.70	.07	.15	12	480

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L32+00W 0+20N-B	1	73	31	136	.5	456	61	9302	7.81	1590	5	ND	4	14	2	3	2	86	1.56	.033	21	650	2.09	173	.17	2	3.79	.04	.07	2	32
L32+00W 0+19N-B	1	61	18	125	.3	332	62	5479	5.66	3271	5	ND	5	4	1	3	2	114	.30	.020	14	767	3.25	58	.19	2	5.24	.02	.03	2	135
L32+00W 0+11N-B	1	109	44	106	.1	146	38	741	5.59	115	5	ND	4	41	1	2	2	170	2.06	.004	13	122	1.64	113	.23	2	7.06	.20	.14	1	21
L32+00W 0+10N-B	1	146	38	223	.1	379	49	3325	9.72	187	5	ND	4	25	2	2	2	123	1.45	.015	13	299	1.58	108	.17	2	5.09	.10	.05	1	20
L32+00W 0+9N-B	1	104	28	103	.1	275	31	1676	6.35	126	5	ND	3	36	1	2	2	134	2.32	.011	12	324	1.50	95	.20	2	6.46	.19	.07	3	12
L32+00W 0+8N-B	1	102	34	91	.1	250	37	1253	5.36	121	5	ND	4	16	1	2	2	138	1.06	.014	14	369	1.22	71	.20	2	6.93	.08	.04	1	14
L32+00W 0+7N-B	1	92	18	87	.1	233	39	859	5.39	121	5	ND	5	9	1	2	2	146	.59	.022	10	366	.96	61	.19	2	7.47	.03	.04	3	6
L31+90W 0+20N-B	1	90	15	96	.5	399	36	5760	7.35	3179	5	ND	4	18	1	2	2	85	1.25	.025	20	445	1.51	127	.12	2	4.94	.09	.03	4	590
L31+90W 0+19N-B	1	103	22	146	.5	244	25	11098	11.13	1079	7	ND	3	17	1	2	2	95	2.98	.025	14	327	3.22	144	.12	3	3.10	.12	.03	1	36
L31+90W 0+18N-B	1	109	33	116	.1	313	25	9428	14.35	2756	5	ND	4	14	1	2	2	106	2.99	.025	17	364	3.47	176	.14	2	3.85	.05	.03	1	57
L31+50W 0+20N-B	2	101	8	72	.3	253	19	9326	6.17	777	7	ND	1	31	2	2	2	39	12.00	.016	8	309	7.08	128	.13	2	1.84	.03	.24	2	88
L31+50W 0+19N-B	1	63	31	66	.2	223	42	3165	8.12	1506	5	ND	4	7	1	2	2	85	.35	.032	13	364	.90	73	.14	2	4.41	.03	.03	2	98
L31+00W 0+20N-B	1	65	4	88	.9	502	52	7061	10.93	14265	5	ND	3	26	1	2	2	168	2.06	.016	8	674	3.25	120	.25	2	5.21	.10	.26	9	820
STD C/AU-S	21	61	39	137	7.3	72	29	1020	3.95	36	16	8	34	50	18	14	21	63	.46	.086	41	59	.87	181	.08	34	1.72	.07	.14	13	53

(Arsenic) [illegible]

ACME ANALYTICAL LABORATORIES 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL -80 MESH AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.
P-20 MESH, PULVERIZED

DATE RECEIVED: JUNE 30 1987 DATE REPORT MAILED: July 10/87 ASSAYER.. [signature] DEAN TOYE, CERTIFIED B.C. ASSAYER

NORTHERN DYNASTY File # 87-2082 Page 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L47+00W 0+90SD	1	20	20	43	.1	52	9	255	3.66	32	5	ND	6	7	1	2	3	65	.16	.012	8	148	.86	35	.22	2	2.39	.02	.05	1	2
L47+00W 1+00SD	1	14	16	25	.1	36	6	90	2.56	18	5	ND	7	6	1	2	2	36	.11	.019	8	63	.26	24	.13	2	2.70	.01	.03	1	1
L47+00W 1+10SD	1	15	14	34	.1	206	15	99	2.24	9	5	ND	1	3	1	2	2	95	.10	.007	3	365	.68	19	.20	3	1.36	.01	.02	1	1
L47+00W 1+20SD	1	12	20	38	.1	31	7	259	2.74	13	5	ND	5	10	1	2	2	55	.39	.016	17	35	.46	40	.20	2	1.65	.02	.03	1	1
L47+00W 1+30SD	1	7	8	31	.2	4	3	61	1.01	2	5	ND	3	10	1	2	2	18	.49	.016	18	7	.16	38	.08	2	.85	.01	.04	1	1
L47+00W 1+40SD	1	5	12	19	.1	5	2	50	2.16	4	5	ND	3	5	1	2	2	44	.08	.010	5	16	.13	11	.18	2	.56	.01	.03	1	2
L47+00W 1+50SD	1	7	13	36	.1	10	3	105	2.35	5	5	ND	4	7	1	2	3	52	.10	.016	7	21	.31	22	.21	3	1.12	.01	.06	1	1
L47+00W 1+60SD	1	7	16	51	.1	8	4	138	2.69	6	5	ND	6	7	1	2	2	51	.11	.041	6	19	.37	24	.24	2	1.73	.01	.08	1	1
L47+00W 1+70SD	1	5	13	29	.1	4	2	66	1.68	2	5	ND	5	6	1	2	2	33	.07	.017	8	14	.15	22	.17	2	1.40	.01	.05	1	2
L47+00W 1+80SC	1	6	9	13	.2	2	1	33	.35	2	5	ND	1	4	1	2	2	18	.08	.009	5	4	.05	21	.07	2	.36	.02	.02	1	2
L47+00W 1+90SD	1	5	14	45	.1	8	4	146	2.25	18	5	ND	6	7	1	2	2	60	.14	.005	6	17	.39	16	.33	3	.92	.02	.05	2	1
L47+00W 2+00SD	1	140	14	50	.1	458	60	414	4.59	988	5	ND	1	3	1	2	2	84	.27	.021	4	452	.67	21	.13	2	1.83	.01	.03	4	51
L47+00W 2+10SD	1	334	14	91	.1	345	73	425	6.03	274	5	ND	4	6	1	2	2	158	.35	.012	6	367	.84	46	.25	2	3.34	.03	.06	2	46
L47+00W 2+20SD	1	12	10	43	.1	15	4	106	2.63	12	5	ND	3	6	1	2	2	82	.13	.010	5	23	.26	22	.23	6	.92	.02	.04	1	2
L47+00W 2+30SD	2	336	23	95	.1	82	39	978	6.79	6	5	ND	3	4	1	2	2	121	.26	.016	10	57	.95	55	.28	6	3.12	.02	.04	2	1
L47+00W 2+40SD	1	12	19	96	.3	18	8	263	4.30	4	5	ND	6	10	1	2	3	81	.13	.048	6	29	.74	35	.37	2	1.77	.02	.18	1	1
L47+00W 2+50SD	1	13	22	92	.1	16	7	229	5.46	6	5	ND	7	9	1	2	2	83	.11	.035	7	36	.63	37	.35	3	2.04	.02	.17	1	1
L47+00W 2+60SD	1	4	10	32	.1	5	2	70	1.62	3	5	ND	5	8	1	2	2	43	.10	.011	6	15	.18	18	.23	2	.67	.02	.06	1	1
L47+00W 2+70SD	1	7	14	72	.1	11	5	178	3.74	7	5	ND	6	7	1	2	2	90	.09	.028	4	26	.51	22	.40	3	1.42	.02	.11	1	1
L47+00W 2+80SD	1	18	18	106	.1	24	8	229	4.66	7	5	ND	7	9	1	2	2	91	.14	.083	7	40	.72	38	.37	3	2.25	.02	.14	1	1
L47+00W 2+90SD	1	18	27	118	.1	17	8	260	4.29	5	5	ND	10	8	1	2	2	60	.15	.083	10	28	.69	40	.30	2	2.92	.02	.15	1	2
L47+00W 3+00SD	1	4	11	56	.1	9	4	137	2.54	3	5	ND	4	13	1	2	3	64	.13	.034	6	21	.41	23	.32	2	1.07	.01	.07	1	1
L43+00W 4+00NA	3	32	7	76	.2	17	9	4035	1.79	3	5	ND	4	39	1	2	2	16	3.23	.104	42	12	.13	153	.01	5	1.03	.01	.01	1	1
L43+00W 3+90NA	1	19	4	53	.2	12	7	1088	1.60	2	5	ND	3	61	1	2	2	12	3.76	.107	34	6	.14	135	.01	6	.79	.01	.02	1	1
L43+00W 3+80NA	4	13	14	61	.1	9	39	7706	5.08	5	5	ND	4	45	1	2	2	15	2.93	.123	29	7	.15	197	.01	5	.74	.01	.05	2	1
L43+00W 3+70NA	1	16	5	50	.3	8	11	1607	1.21	3	6	ND	4	40	1	2	2	10	2.74	.083	42	6	.15	112	.01	6	.93	.01	.01	1	1
L43+00W 3+60ND	1	4	3	13	.3	5	1	68	.59	5	7	ND	2	6	1	2	2	13	.13	.011	6	9	.10	11	.10	2	.28	.01	.03	1	1
L43+00W 3+50ND	1	6	5	15	.1	5	2	62	1.06	3	5	ND	2	6	1	2	2	18	.14	.022	8	13	.14	14	.09	2	.63	.01	.03	1	1
L43+00W 3+40ND	1	3	5	14	.1	3	1	43	.68	2	5	ND	2	6	1	3	2	14	.14	.027	5	8	.10	8	.09	2	.32	.01	.02	1	1
L43+00W 3+30NA	1	29	13	33	.5	6	2	45	1.03	2	7	ND	3	37	1	2	2	6	1.10	.091	50	8	.09	108	.03	2	.95	.01	.06	1	1
L43+00W 3+20NA	1	5	7	12	.1	2	1	24	.35	2	5	ND	2	6	1	2	2	10	.10	.008	8	6	.05	12	.07	2	.29	.01	.04	1	1
L43+00W 3+10ND	1	5	5	17	.2	6	2	70	.84	2	5	ND	4	7	1	2	2	16	.23	.040	8	10	.15	12	.08	2	.34	.01	.04	1	1
L43+00W 3+00ND	1	16	12	39	.2	23	7	138	2.06	4	5	ND	6	11	1	2	2	40	.17	.010	16	25	.42	51	.16	4	1.50	.01	.09	1	1
L43+00W 2+90ND	1	27	22	68	.2	37	15	206	4.12	3	5	ND	11	11	1	2	3	55	.18	.044	18	34	.51	62	.17	5	3.01	.02	.14	1	1
L43+00W 2+80ND	1	14	24	85	.1	15	8	224	6.13	3	5	ND	8	8	1	2	2	103	.12	.064	6	34	.53	39	.33	4	2.76	.02	.15	1	1
L43+00W 2+70ND	1	13	17	100	.1	16	7	219	3.59	2	5	ND	10	9	1	2	2	78	.14	.060	7	29	.59	42	.34	2	1.73	.02	.18	1	2

NORTHERN DYNASTY FILE # 87-2082

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L43+00W 2+60NB	1	15	18	78	.2	12	6	200	3.72	5	5	ND	7	6	1	2	2	74	.09	.050	8	24	.53	34	.33	2	1.56	.02	.12	1	1
L43+00W 2+50NB	1	41	29	194	.4	30	14	360	6.46	7	5	ND	13	6	1	2	2	81	.14	.166	11	41	.88	51	.35	2	4.32	.02	.25	1	1
L43+00W 2+40NB	1	11	17	109	.2	13	6	172	2.80	2	5	ND	5	5	1	2	2	49	.10	.069	7	27	.43	45	.21	2	2.05	.02	.12	1	1
L43+00W 2+30NB	1	21	47	102	.3	13	7	200	3.67	6	5	ND	10	6	1	3	2	58	.12	.100	11	25	.52	37	.25	2	2.55	.01	.14	1	2
L43+00W 2+20NB	1	2	7	24	.1	3	2	64	.99	3	5	ND	3	5	1	2	2	25	.09	.011	4	10	.14	17	.19	2	.42	.02	.05	1	2
L43+00W 2+10NB	1	13	13	56	.2	10	4	127	2.96	5	5	ND	6	6	1	2	2	53	.10	.071	8	24	.34	25	.18	2	1.87	.02	.08	1	1
L43+00W 2+00NB	1	4	12	18	.2	4	1	46	1.27	3	5	ND	3	5	1	2	3	30	.07	.034	5	8	.11	14	.18	2	.56	.01	.03	1	1
L43+00W 1+90NB	1	2	7	16	.2	6	2	45	1.30	3	5	ND	4	4	1	2	2	29	.06	.009	4	11	.15	15	.14	2	.55	.01	.03	2	1
L43+00W 1+80NB	1	4	9	17	.1	6	2	45	1.20	2	5	ND	3	4	1	2	2	27	.06	.006	5	13	.12	16	.11	2	.84	.01	.03	1	1
L43+00W 1+70NB	1	7	4	20	.1	10	4	79	1.08	2	5	ND	5	6	1	2	2	16	.17	.033	9	15	.20	27	.08	2	.81	.01	.04	1	1
L43+00W 1+60NB	1	5	8	13	.1	7	3	44	1.29	2	5	ND	6	6	1	2	2	19	.27	.009	13	14	.12	22	.09	2	1.07	.01	.01	1	1
L43+00W 1+50NA	1	12	2	36	.1	6	1	196	.24	2	5	ND	1	30	1	2	2	4	2.52	.037	5	3	.09	56	.01	4	.31	.01	.01	1	1
L43+00W 1+40NA	1	9	4	39	.2	7	3	136	.77	2	5	ND	2	46	1	3	2	3	3.46	.066	8	3	.08	91	.01	7	.34	.01	.01	2	2
L43+00W 1+30NA	1	9	2	48	.2	6	1	29	.66	2	5	ND	1	36	1	2	2	2	2.50	.066	8	3	.10	60	.01	6	.25	.01	.01	2	1
L42+00W 4+00NB	1	2	8	20	.1	3	1	52	.72	3	5	ND	3	4	1	2	2	25	.13	.007	3	7	.12	13	.16	2	.35	.01	.03	1	1
L42+00W 3+90NB	1	11	15	30	.1	7	3	81	1.57	2	5	ND	3	5	1	2	2	38	.10	.014	5	10	.20	15	.16	2	.68	.01	.03	2	3
L42+00W 3+80NB	1	9	9	24	.1	6	2	62	1.99	6	5	ND	2	3	1	2	2	72	.06	.010	4	11	.15	10	.23	2	.62	.01	.02	1	195
L42+00W 3+70NB	1	16	8	17	.1	4	1	29	.63	2	5	ND	1	4	1	2	2	19	.04	.014	6	4	.09	24	.06	2	.46	.01	.03	1	1
L42+00W 3+60NB	1	24	7	28	.1	3	2	56	1.52	2	5	ND	1	2	1	2	2	63	.15	.020	3	9	.15	19	.04	2	.86	.02	.02	1	1
L42+00W 3+50NA	1	29	14	10	.2	3	1	19	.24	2	5	ND	1	2	1	2	2	13	.05	.021	7	9	.05	43	.01	2	.61	.01	.01	1	2
L42+00W 3+40NB	1	12	5	20	.1	5	2	49	.90	2	5	ND	1	2	1	2	2	44	.16	.016	2	9	.11	10	.09	2	.38	.01	.01	1	1
L42+00W 3+30NB	1	34	5	28	.3	5	3	85	2.07	3	6	ND	1	2	1	2	2	88	.18	.015	3	11	.20	18	.10	2	.72	.02	.02	1	6
L42+00W 3+20NB	1	78	6	18	.1	7	3	42	1.56	2	5	ND	1	1	1	2	2	44	.12	.007	4	19	.26	19	.07	2	.98	.02	.01	1	4
L42+00W 3+10NB	1	4	5	16	.1	1	1	23	.44	2	5	ND	1	3	1	2	2	20	.06	.005	3	3	.05	11	.09	2	.26	.01	.01	1	2
L42+00W 3+00NB	1	49	12	65	.3	71	15	280	10.30	7	5	ND	2	2	1	2	2	225	.11	.022	3	216	.71	38	.35	2	2.32	.02	.04	1	2
L42+00W 2+90NB	4	859	16	157	.4	360	56	5181	23.78	9	5	ND	4	5	1	2	2	57	.29	.049	13	51	.87	41	.06	2	2.15	.01	.02	5	68
L42+00W 2+80NB	3	271	11	129	.3	165	40	456	9.25	10	5	ND	2	6	1	2	2	204	.25	.022	3	496	1.58	54	.28	2	4.84	.06	.11	1	5
L42+00W 2+70NB	1	89	8	68	.1	56	14	83	3.65	2	5	ND	1	2	1	2	2	212	.09	.012	2	158	.65	24	.18	2	1.74	.03	.01	1	1
L42+00W 2+60NB	1	18	3	21	.1	6	2	30	.70	2	5	ND	1	2	1	2	3	37	.12	.012	2	16	.11	11	.07	5	.31	.01	.01	1	2
L42+00W 2+50NB	1	60	7	18	.1	19	5	62	1.38	2	5	ND	1	2	1	2	2	42	.15	.011	4	35	.18	32	.11	2	1.53	.02	.01	1	1
L42+00W 2+40NB	1	76	10	49	.1	27	7	119	3.45	2	7	ND	1	3	1	2	2	100	.20	.023	3	73	.53	36	.19	5	2.28	.03	.04	1	1
L42+00W 2+30NB	1	78	11	42	.1	30	8	92	5.44	5	5	ND	2	3	1	2	2	205	.13	.021	4	108	.33	45	.16	4	3.31	.03	.02	3	1
L42+00W 2+20NB	1	44	13	36	.1	15	5	116	4.00	5	5	ND	1	2	1	2	4	187	.08	.020	5	36	.19	30	.09	3	1.34	.02	.02	1	1
L42+00W 2+10NB	1	23	9	17	.1	6	2	53	2.04	2	5	ND	5	3	1	2	3	42	.08	.017	8	22	.14	7	.10	2	1.42	.01	.01	1	1
L42+00W 2+00NA	1	9	2	15	.1	9	3	95	.89	2	5	ND	1	6	1	2	2	44	.12	.011	2	21	.15	22	.06	2	.47	.01	.03	1	3
L42+00W 1+90NB	1	12	14	37	.1	12	5	128	3.24	5	5	ND	6	5	1	2	2	46	.11	.020	10	21	.31	20	.20	2	1.46	.01	.03	1	1
STD C/AU-S	21	61	40	144	7.1	73	29	1059	4.09	44	19	7	36	51	18	16	22	64	.49	.091	38	60	.91	192	.09	35	1.76	.07	.14	12	48

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L42+00W 1+80NB	1	10	12	28	.1	8	3	83	2.53	2	5	ND	5	7	1	2	2	36	.12	.020	13	17	.24	21	.16	2	1.84	.01	.05	2	1
L42+00W 1+70NA P	1	19	5	69	.1	5	1	10	.21	2	5	ND	2	21	1	2	2	4	.34	.042	18	4	.03	62	.02	2	.88	.01	.01	1	1
L42+00W 1+60NA P	1	11	4	32	.1	9	2	56	.49	3	5	ND	1	27	1	2	2	2	2.42	.055	5	1	.09	35	.01	5	.20	.01	.01	1	2
L42+00W 1+50NA P	1	10	3	42	.1	5	2	26	.60	2	5	ND	1	29	1	4	2	2	2.39	.059	4	1	.10	48	.01	4	.20	.01	.01	1	1
L42+00W 0+80NA P	1	2	2	53	.1	1	1	15	.09	2	5	ND	1	11	1	2	2	1	.56	.042	2	1	.03	27	.01	2	.10	.01	.02	1	1
L42+00W 0+60NA P	1	2	2	66	.1	1	1	31	.08	2	5	ND	1	10	1	2	2	1	.46	.042	2	2	.03	23	.01	2	.11	.01	.02	1	1
L41+00W 4+00NB	1	6	8	23	.1	5	2	89	1.02	2	5	ND	3	5	1	2	2	26	.12	.003	4	8	.25	12	.18	2	.70	.01	.04	1	2
L41+00W 3+90NB	1	18	10	61	.1	15	7	217	2.20	4	5	ND	3	5	1	2	2	73	.21	.007	5	16	.61	22	.31	2	1.48	.02	.05	1	1
L41+00W 3+80NB	2	50	8	33	.1	26	9	155	3.18	5	5	ND	1	2	1	2	2	155	.25	.011	2	43	.44	19	.16	2	1.19	.03	.02	1	1
L41+00W 3+70NB	1	23	5	35	.1	56	11	92	2.87	5	5	ND	1	3	1	2	2	109	.20	.010	3	54	.94	26	.28	2	1.88	.03	.04	1	2
L41+00W 3+60NB	3	49	7	22	.1	19	5	77	3.18	5	5	ND	1	1	1	2	2	129	.20	.012	3	11	.40	14	.13	2	1.30	.03	.02	1	1
L41+00W 3+50NB	3	28	18	84	.1	11	7	232	5.16	9	5	ND	7	7	1	2	2	81	.08	.032	11	18	.64	30	.41	2	1.87	.02	.12	1	1
L41+00W 3+40NB	1	48	16	33	.1	9	4	65	2.05	2	5	ND	3	4	1	2	2	47	.17	.013	12	15	.36	34	.11	2	1.46	.03	.03	1	1
L41+00W 3+35NC	1	21	4	14	.1	3	2	35	.96	4	5	ND	1	2	1	2	2	34	.12	.010	3	4	.16	12	.04	2	.45	.02	.03	1	1
L41+00W 3+30NA P	1	54	3	38	.2	8	2	32	1.07	3	5	ND	3	22	1	2	2	3	1.27	.078	49	4	.04	73	.01	3	.86	.01	.01	1	1
L41+00W 3+20NA P	1	4	2	51	.1	3	1	18	.22	2	5	ND	1	16	1	2	2	1	.53	.025	3	1	.04	24	.01	2	.14	.01	.01	1	1
L41+00W 3+10NA P	1	5	2	42	.1	2	1	10	.11	2	5	ND	1	11	1	2	2	1	.39	.017	2	2	.03	21	.01	2	.14	.01	.01	1	2
L41+00W 3+00NA P	1	3	2	113	.1	1	1	13	.07	2	5	ND	1	12	1	2	2	1	.33	.021	2	1	.03	20	.01	2	.13	.01	.01	1	1
L41+00W 2+60NA P	1	5	2	58	.1	1	1	17	.04	2	5	ND	1	11	1	2	2	1	.36	.017	2	2	.04	18	.01	2	.11	.01	.01	1	1
L41+00W 2+30NA P	1	4	2	49	.1	1	1	11	.04	2	6	ND	1	10	1	2	2	1	.40	.033	2	1	.03	26	.01	2	.11	.01	.01	1	1
L41+00W 2+20NA P	1	3	3	74	.1	1	1	13	.05	2	5	ND	1	10	1	2	2	1	.40	.027	2	1	.02	23	.01	2	.10	.01	.01	1	1
L41+00W 2+10NA P	1	3	2	45	.2	1	1	19	.06	2	6	ND	1	9	1	2	2	1	.33	.034	2	2	.02	23	.01	2	.11	.01	.02	1	2
L41+00W 2+00NA P	1	2	2	42	.1	1	1	16	.07	2	5	ND	1	15	1	2	2	1	.55	.023	4	2	.03	35	.01	2	.15	.01	.01	1	1
L41+00W 1+90NA P	1	16	5	56	.1	7	1	77	.84	2	5	ND	2	27	1	2	2	5	2.63	.039	24	4	.04	62	.01	5	.42	.01	.01	1	1
L41+00W 1+80NA P	2	30	7	37	.1	18	4	447	3.72	2	5	ND	3	28	1	2	2	11	3.06	.057	29	5	.04	198	.01	6	.72	.01	.01	1	1
L41+00W 1+70NB	1	13	12	29	.1	10	4	86	2.41	2	5	ND	6	8	1	2	3	31	.10	.014	13	20	.25	26	.15	2	2.11	.01	.05	1	2
L41+00W 1+60NB	1	6	8	13	.1	4	1	32	1.28	2	5	ND	5	4	1	3	2	13	.09	.016	11	13	.08	7	.06	2	1.59	.01	.02	1	1
L41+00W 1+50NB	1	8	7	18	.1	4	2	43	.78	2	5	ND	4	5	1	2	2	13	.12	.019	12	13	.13	10	.08	2	.69	.01	.03	1	1
L41+00W 1+40NB	1	6	10	26	.1	7	3	86	1.24	2	5	ND	5	7	1	2	2	20	.16	.019	11	13	.24	23	.13	2	.80	.01	.04	1	1
L41+00W 1+30NB	1	3	9	14	.1	3	1	27	.67	2	5	ND	3	5	1	2	2	13	.07	.009	9	7	.09	9	.09	2	.58	.01	.02	1	1
L41+00W 1+20NB	1	5	5	21	.1	6	3	59	1.10	2	5	ND	5	6	1	2	2	15	.20	.015	11	9	.14	19	.09	2	.60	.01	.03	1	1
L41+00W 1+10NB	1	15	5	28	.1	10	3	116	1.22	6	5	ND	6	7	1	2	2	15	.31	.036	12	12	.24	22	.09	2	.55	.01	.06	1	2
L41+00W 1+00NA	1	11	4	76	.1	4	1	26	.31	2	5	ND	2	40	1	2	2	4	2.84	.040	11	1	.19	45	.01	3	.38	.01	.03	1	1
L41+00W 0+90NA	2	39	4	53	.1	17	6	877	1.21	11	6	ND	4	44	1	2	2	14	3.46	.085	74	11	.32	103	.02	5	1.38	.01	.04	1	1
L41+00W 0+20NA P	1	3	3	80	.1	2	1	21	.10	2	5	ND	1	14	1	2	2	2	.63	.017	4	4	.03	30	.01	2	.14	.01	.02	1	2
L41+00W 0+10NA P	1	7	3	45	.1	3	1	55	.62	2	5	ND	1	22	1	2	2	3	1.12	.043	16	3	.05	49	.01	2	.20	.01	.01	1	1
STD C/AU-S	21	57	37	135	7.0	68	28	989	4.00	42	18	7	34	48	17	16	19	56	.49	.086	40	57	.90	175	.08	36	1.84	.06	.14	12	49

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L41+00W 0+00NA	1	59	4	41	.2	6	1	103	1.13	8	5	ND	2	30	1	2	2	6	1.89	.076	22	2	.12	57	.01	4	.28	.01	.01	2	2
L41+00W 0+10SB	3	16	12	25	.2	79	7	199	3.82	212	5	ND	2	3	1	2	2	60	.11	.013	3	239	.47	20	.17	3	.93	.01	.03	1	1
L41+00W 0+20SB	2	10	10	28	.2	11	3	74	2.50	7	5	ND	8	6	1	2	2	33	.12	.028	7	21	.14	20	.15	3	2.08	.01	.03	1	1
L41+00W 0+30SB	2	6	12	15	.1	4	1	41	1.69	2	5	ND	5	5	1	3	5	30	.09	.020	6	10	.07	13	.10	2	1.53	.01	.02	1	1
L41+00W 0+40SB	4	62	10	73	.4	182	36	413	5.90	191	5	ND	3	5	1	2	2	91	.30	.020	5	321	1.06	66	.10	3	4.63	.01	.08	1	41
L41+00W 0+50SB	4	7	17	25	.1	7	2	61	2.84	9	5	ND	4	6	1	2	2	50	.09	.015	6	19	.14	16	.22	2	1.00	.01	.03	1	1
L41+00W 0+60SB	1	5	12	11	.2	4	1	41	1.01	3	5	ND	3	7	1	2	3	24	.13	.012	5	7	.09	11	.13	3	.62	.01	.03	1	1
L41+00W 0+70SB	1	4	19	20	.1	3	1	37	.50	2	5	ND	4	9	1	2	2	16	.11	.014	9	12	.08	20	.13	3	.39	.01	.04	1	1
L41+00W 0+80SB	1	5	5	19	.1	11	1	50	.08	4	5	ND	5	5	1	2	2	16	.11	.009	7	14	.20	13	.06	2	.54	.01	.02	1	2
L41+00W 0+90SA	2	25	7	42	.6	10	3	214	.83	4	5	ND	4	50	1	2	2	4	2.87	.110	89	1	.20	113	.01	6	.74	.01	.03	1	2
L41+00W 1+00SA	1	40	7	55	.8	15	3	367	.85	4	5	ND	5	54	1	2	2	4	3.63	.105	99	4	.23	111	.01	8	.84	.01	.03	1	3
L39+00W 1+00SA	1	66	10	40	.4	412	37	517	3.77	90	5	ND	4	27	1	2	2	71	2.19	.023	21	638	1.07	49	.15	4	4.34	.03	.05	1	25
L39+00W 1+10SB	3	60	15	70	.5	259	34	2162	7.56	199	5	ND	4	7	1	2	2	116	.56	.021	21	483	1.17	257	.21	3	4.49	.02	.04	1	5
L39+00W 1+20SB	1	2	4	9	.1	4	1	42	.27	2	6	ND	3	4	1	3	2	8	.07	.004	5	6	.03	9	.06	3	.23	.01	.02	1	1
L39+00W 1+30SB	2	7	14	35	.1	9	3	81	2.69	5	5	ND	5	6	1	2	2	57	.09	.030	5	18	.22	19	.23	4	1.05	.01	.05	1	1
L39+00W 1+40SB	1	2	3	19	.1	1	1	19	.40	2	5	ND	2	5	1	2	4	8	.05	.008	5	2	.02	15	.03	3	.20	.01	.02	1	1
L39+00W 1+50SB	4	84	17	156	.1	346	60	652	6.44	250	5	ND	4	6	1	2	2	102	.37	.031	8	491	.43	47	.18	4	2.55	.01	.07	3	55
L39+00W 1+60SB	2	21	17	28	.2	22	4	98	1.72	6	5	ND	7	7	1	2	2	41	.15	.006	8	57	.20	39	.20	2	.86	.01	.04	1	1
L39+00W 1+70SB	1	11	2	18	.1	20	3	70	.95	2	5	ND	1	3	1	2	2	27	.17	.008	2	98	.14	11	.04	2	.31	.01	.02	1	1
L39+00W 1+80SB	1	7	9	20	.1	3	1	37	.77	2	5	ND	4	7	1	2	3	20	.10	.006	8	14	.06	22	.09	2	.41	.01	.02	1	2
L39+00W 1+90SB	1	5	9	19	.1	3	1	44	.72	2	5	ND	6	7	1	2	2	21	.11	.007	7	7	.09	16	.16	3	.40	.01	.04	1	1
L39+00W 2+00SB	2	80	19	34	.1	184	28	139	4.24	18	5	ND	3	4	1	2	2	76	.22	.006	5	538	.68	29	.20	10	1.77	.02	.01	1	2
L39+00W 2+10SB	1	20	8	31	.1	42	7	100	1.53	15	5	ND	4	7	1	2	2	24	.20	.008	6	47	.27	17	.12	3	.90	.01	.03	1	1
L39+00W 2+20SB	1	9	8	21	.2	11	3	75	1.53	7	5	ND	6	7	1	2	2	31	.18	.016	7	18	.19	14	.15	3	.83	.01	.04	1	1
L39+00W 2+30SB	1	6	8	19	.1	10	3	72	1.20	4	5	ND	4	8	1	2	2	18	.17	.023	8	15	.21	17	.08	4	.82	.01	.05	1	1
L39+00W 2+40SB	1	5	6	22	.1	8	2	74	.94	2	5	ND	3	7	1	2	2	18	.14	.010	7	10	.19	11	.10	2	.49	.01	.04	1	2
L39+00W 2+50SA	1	20	5	54	.5	11	4	835	.46	2	5	ND	1	62	1	2	2	4	5.59	.082	15	5	.14	109	.01	8	.57	.06	.03	1	2
L39+00W 2+60SA	1	32	2	39	.4	18	4	518	.58	2	5	ND	2	69	1	2	2	10	6.31	.103	20	10	.18	136	.01	8	.75	.09	.02	1	3
L39+00W 2+70SA	1	11	2	29	.1	7	1	111	.21	2	5	ND	1	58	1	2	2	4	4.85	.054	5	2	.16	78	.01	9	.35	.02	.01	1	1
L39+00W 2+80SA	1	12	7	54	.1	5	1	16	.31	2	5	ND	1	25	1	2	2	3	.90	.034	6	2	.07	38	.01	2	.28	.01	.02	1	1
L39+00W 2+90SB	2	11	12	26	.1	7	3	77	2.32	4	5	ND	4	7	1	2	2	69	.13	.012	4	16	.21	13	.26	3	.96	.01	.05	1	2
L39+00W 3+00SB	2	8	13	29	.1	7	3	77	2.07	4	5	ND	6	7	1	2	2	35	.14	.024	10	18	.20	25	.17	3	1.52	.01	.04	1	1
L37+00W 1+00SB	2	21	26	57	.2	284	22	3026	7.94	58	5	ND	4	10	1	2	2	44	1.02	.031	10	151	.50	79	.06	2	3.12	.01	.05	1	3
L37+00W 1+10SB	2	42	12	38	.1	107	18	147	3.23	86	5	ND	5	5	1	2	2	51	.13	.009	5	142	.49	20	.12	13	2.68	.01	.03	2	230
L37+00W 1+20SB	2	14	20	54	.1	35	8	171	3.17	9	5	ND	6	10	1	2	2	63	.21	.011	10	44	.38	48	.23	4	1.70	.01	.05	1	1
L37+00W 1+30SB	3	45	8	47	.1	19	12	239	5.74	22	5	ND	1	4	1	2	2	280	.33	.014	4	12	.39	42	.22	3	2.09	.02	.05	1	1
STD C/AU-S	22	60	42	137	7.3	72	31	1025	4.17	43	18	8	37	53	19	16	17	63	.55	.096	42	61	.90	175	.09	36	1.75	.06	.15	13	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L37+00W 1+40SB	5	36	20	80	.1	49	20	369	7.58	35	5	ND	3	5	1	2	5	233	.31	.021	4	167	.77	71	.26	2	3.22	.03	.07	1	1
L37+00W 1+50SB	2	103	22	69	.1	185	44	482	5.84	48	5	ND	1	4	1	2	2	131	.26	.015	2	540	1.43	37	.31	2	2.41	.03	.02	1	2
L37+00W 1+60SB	1	181	20	89	.1	185	37	3032	4.75	19	5	ND	6	9	1	2	4	79	.44	.027	11	238	.51	119	.15	2	2.19	.02	.06	1	1
L37+00W 1+70SB	3	15	20	47	.1	42	11	121	6.10	6	5	ND	3	3	1	4	4	166	.08	.010	4	183	.38	30	.28	2	2.12	.04	.05	5	1
L37+00W 1+80SB	1	28	22	55	.1	49	12	107	5.64	22	5	ND	3	2	1	7	3	169	.09	.011	3	205	.40	39	.29	2	1.91	.04	.11	3	1
L37+00W 1+90SA	1	214	4	55	.3	281	5	1318	.42	21	5	ND	1	69	1	2	2	6	8.91	.076	40	59	.11	61	.01	11	.53	.17	.01	2	1
L37+00W 2+00SA	1	30	22	18	.1	25	6	300	1.97	3	5	ND	3	37	1	2	2	41	2.86	.109	27	109	.06	58	.04	2	1.50	.01	.01	1	1
L37+00W 2+10SA	1	30	2	53	.3	34	1	38	.56	2	5	ND	2	45	1	2	2	3	4.24	.076	22	7	.08	84	.01	5	.86	.01	.02	1	1
L37+00W 2+20SA	13	10	10	151	.1	21	80	45002	11.62	238	5	ND	4	41	1	2	2	5	4.46	.131	10	2	.08	913	.01	6	.44	.01	.02	4	2
L37+00W 2+30SA	7	8	13	119	.1	19	186	14111	6.99	19	5	ND	2	34	1	2	2	3	3.86	.062	2	1	.08	547	.01	6	.19	.01	.02	3	1
L37+00W 2+70SA	1	15	12	89	.1	23	5	716	.77	41	5	ND	1	55	1	3	2	4	4.29	.084	19	3	.10	78	.01	6	.21	.01	.01	1	1
L37+00W 2+80SA	1	35	2	79	.3	42	7	182	.63	45	5	ND	5	58	1	2	2	7	4.73	.089	111	3	.08	87	.01	6	.62	.01	.01	1	1
L37+00W 2+90SA	1	61	9	32	.4	42	4	137	.93	11	5	ND	10	52	1	2	2	9	1.67	.065	221	8	.10	123	.05	2	.93	.01	.06	4	1
L37+00W 3+00SA	2	65	9	43	.5	32	9	233	1.59	5	5	ND	23	62	1	2	2	12	.73	.153	431	14	.07	118	.02	3	1.94	.01	.04	3	1
L30+00W 1+10SB	1	5	10	36	.1	8	4	126	1.77	2	5	ND	9	7	1	2	2	38	.20	.009	15	15	.25	20	.16	2	.76	.02	.06	2	1
L30+00W 1+20SB	2	14	23	63	.1	17	8	206	5.11	6	5	ND	12	12	1	2	2	110	.18	.038	13	34	.49	35	.39	3	1.84	.02	.14	2	1
L30+00W 1+30SB	1	7	16	64	.1	9	5	185	3.12	5	5	ND	8	9	1	3	2	76	.09	.065	12	24	.31	28	.28	3	1.28	.03	.07	1	1
L30+00W 1+40SB	1	5	11	29	.1	7	3	97	2.49	2	5	ND	18	5	1	2	2	46	.10	.040	9	19	.19	12	.15	2	.58	.02	.03	2	2
L30+00W 1+50SB	1	15	16	34	.1	15	7	178	2.54	8	5	ND	6	10	1	2	2	70	.27	.026	13	16	.22	39	.17	2	2.05	.02	.04	1	1
L30+00W 1+60SB	1	3	10	13	.1	4	1	49	1.18	2	5	ND	4	6	1	3	3	37	.07	.009	7	10	.11	12	.16	2	.51	.01	.04	4	3
L30+00W 1+70SB	1	6	10	20	.1	8	2	83	.97	5	7	ND	4	7	1	2	2	32	.15	.026	8	8	.21	10	.13	2	.55	.01	.04	1	1
L30+00W 1+80SB	1	106	22	56	.1	82	37	518	10.51	13	5	ND	7	11	1	2	2	309	.39	.040	9	21	.43	99	.31	2	4.76	.08	.28	1	2
L30+00W 1+90SB	1	5	3	15	.1	5	2	53	.67	2	5	ND	4	7	1	2	2	18	.18	.030	7	7	.13	12	.09	3	.44	.01	.01	1	1
L30+00W 2+00SB	1	20	18	49	.1	20	7	177	2.52	8	5	ND	6	7	1	2	3	65	.13	.014	11	24	.46	28	.27	3	1.55	.02	.04	3	3
L30+00W 2+10SAC	1	27	15	27	.1	5	3	120	1.08	2	5	ND	3	12	1	2	2	27	.19	.022	16	6	.12	54	.08	2	.67	.02	.05	1	2
L30+00W 2+20SB	1	7	8	21	.2	6	2	66	1.55	2	5	ND	5	6	1	2	2	53	.08	.012	7	14	.13	14	.16	13	.54	.02	.03	1	1
L30+00W 2+30SB	1	9	10	56	.1	13	6	209	3.67	10	5	ND	8	8	1	2	2	88	.12	.017	8	29	.50	30	.35	3	1.20	.02	.08	1	1
L30+00W 2+40SB	1	8	13	60	.1	14	7	193	2.94	2	6	ND	6	8	1	2	2	74	.12	.009	8	28	.47	21	.29	2	1.10	.02	.05	1	2
L30+00W 2+50SB	1	27	13	46	.3	16	10	201	3.68	2	5	ND	1	2	1	2	5	243	.16	.016	3	30	.34	28	.25	2	1.32	.03	.03	3	1
L30+00W 2+60SB	1	58	11	59	.1	22	14	201	6.73	7	5	ND	4	3	1	2	2	242	.12	.028	6	79	.40	46	.24	2	2.81	.03	.07	1	1
L30+00W 2+70SB	1	34	13	34	.2	7	4	109	1.58	2	5	ND	1	2	1	2	2	106	.16	.017	6	14	.19	28	.11	2	1.10	.02	.03	1	1
L30+00W 2+80SB	2	27	11	50	.2	18	10	185	3.65	7	5	ND	3	5	1	2	2	241	.15	.019	4	31	.40	32	.28	2	1.37	.04	.04	1	1
L30+00W 2+90SB	1	7	7	26	.4	12	3	94	1.26	2	5	ND	4	6	1	3	2	43	.11	.007	6	22	.27	17	.19	2	.78	.02	.04	1	1
L30+00W 3+00SB	1	44	15	76	.2	16	11	301	4.07	5	5	ND	3	5	1	2	2	249	.34	.041	8	11	.44	43	.20	2	1.52	.04	.06	1	1
L27+00W 1+80NB	1	48	16	32	.1	32	12	117	2.33	4	5	ND	21	9	1	2	2	41	.11	.009	25	36	.36	63	.19	3	3.00	.02	.08	3	1
L27+00W 1+70NB	1	12	15	51	.1	21	9	249	2.29	2	5	ND	4	8	1	4	2	121	.10	.015	8	122	.61	40	.43	2	1.33	.03	.06	1	3
STD C/AU-S	21	63	37	139	7.2	68	30	1090	3.77	39	17	7	38	53	19	14	21	62	.45	.095	40	59	.83	176	.09	37	1.72	.07	.14	13	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L27+00W 1+60NB	1	15	18	96	.5	17	8	306	4.02	8	5	ND	10	9	1	2	2	59	.13	.131	10	32	.67	33	.32	2	2.98	.02	.18	2	3
L27+00W 1+50NB	1	17	22	105	.2	22	10	314	4.35	3	5	ND	9	10	1	2	2	63	.14	.140	10	35	.84	43	.36	2	3.20	.02	.22	1	1
L27+00W 1+40NB	1	8	12	99	.2	14	6	179	3.02	4	5	ND	7	7	1	2	2	42	.10	.094	7	23	.48	41	.22	2	2.86	.02	.18	1	1
L27+00W 1+30NB	1	15	12	114	.7	17	10	231	3.34	6	5	ND	12	10	1	2	2	40	.09	.129	12	29	.33	61	.17	2	4.43	.02	.14	1	1
L27+00W 1+20NB	1	22	16	97	.3	16	7	275	3.42	6	5	ND	10	7	1	2	2	44	.13	.238	17	29	.52	46	.21	2	3.34	.02	.11	1	1
L27+00W 1+10NB	1	9	15	144	.2	13	6	228	3.60	4	5	ND	10	7	1	2	2	46	.10	.228	8	29	.44	54	.20	2	4.90	.02	.14	1	1
L27+00W 1+00NB	1	9	13	120	.3	11	5	152	2.35	2	5	ND	9	7	1	3	2	32	.10	.090	10	22	.33	45	.16	2	2.73	.02	.12	1	1
L27+00W 0+90NB	1	16	17	127	.1	17	7	253	3.72	6	5	ND	10	8	1	2	2	52	.16	.255	9	31	.54	51	.22	2	3.50	.01	.15	1	1
L27+00W 0+80NB	1	25	18	107	.1	18	8	234	4.00	6	5	ND	10	8	1	2	2	51	.15	.178	16	33	.57	35	.24	2	2.94	.01	.13	1	2
L27+00W 0+70NB	1	6	14	57	.2	8	4	112	2.37	2	5	ND	6	7	1	2	2	37	.11	.052	8	19	.28	28	.17	2	1.73	.01	.09	1	1
L27+00W 0+60NB	1	3	6	11	.1	5	1	23	.98	4	5	ND	3	5	1	5	2	18	.09	.022	7	14	.09	13	.06	2	.87	.01	.03	1	1
L27+00W 0+50NB	1	6	10	29	.1	9	3	71	1.66	4	5	ND	5	7	1	2	2	50	.13	.026	11	26	.26	21	.14	9	1.36	.02	.04	1	1
L27+00W 0+40NA	1	20	15	26	.1	9	2	19	.51	2	5	ND	1	12	1	5	4	10	.28	.031	13	8	.07	41	.03	2	.54	.01	.05	2	1
L27+00W 0+30NB	1	4	8	10	.2	6	1	27	.47	10	5	ND	2	5	1	3	2	11	.08	.009	7	12	.08	7	.07	2	.32	.02	.04	1	1
L27+00W 0+20NB	1	12	12	31	.1	16	5	103	2.76	22	5	ND	6	8	1	2	2	40	.11	.011	12	31	.35	26	.18	2	1.63	.01	.06	2	1
L27+00W 0+10NB	1	14	15	50	.1	16	6	139	3.23	8	5	ND	5	9	1	2	4	60	.13	.024	12	30	.47	37	.26	2	1.73	.02	.09	1	2
L27+00W 0+00NB	1	14	20	39	.1	17	6	111	2.61	5	5	ND	7	7	1	2	4	46	.10	.019	12	45	.36	27	.20	2	1.97	.02	.06	1	1
L27+00W 0+10SB	1	3	9	13	.2	3	1	17	.26	6	5	ND	1	5	1	2	4	11	.06	.011	6	12	.04	18	.04	2	.37	.01	.03	1	8
L27+00W 0+20SB	1	6	11	21	.1	6	1	43	.75	9	5	ND	3	7	1	2	3	21	.08	.012	6	12	.11	24	.12	2	.52	.01	.04	1	1
L27+00W 0+30SB	1	4	7	13	.1	5	2	32	.98	5	5	ND	4	6	1	2	4	16	.08	.012	8	13	.11	15	.09	2	.96	.01	.03	1	1
L27+00W 0+40SA	1	26	16	50	.2	22	4	15	.46	7	5	ND	2	42	1	3	2	3	2.54	.058	43	4	.09	66	.01	3	.45	.01	.04	2	2
L27+00W 0+50SA	1	42	15	83	.1	18	2	10	.19	5	5	ND	1	17	1	2	3	3	.54	.044	12	4	.04	53	.01	2	.23	.01	.05	1	1
L23+00W 0+00NB	1	20	14	72	.1	17	6	188	2.88	3	5	ND	9	7	1	2	2	40	.12	.088	10	26	.49	26	.24	2	2.11	.02	.14	1	1
L23+00W 0+10SB	2	27	17	82	.1	22	9	221	3.39	5	5	ND	7	10	1	2	2	65	.14	.016	12	30	.64	34	.37	3	1.64	.02	.11	1	1
L23+00W 0+20SB	1	12	12	18	.2	13	4	77	.82	2	5	ND	2	8	1	2	2	24	.17	.006	4	18	.20	13	.19	2	.68	.03	.03	1	3
L23+00W 0+30SB	1	34	33	45	.4	22	16	245	6.09	40	5	ND	10	10	1	2	4	87	.13	.022	28	26	.25	68	.17	2	2.34	.02	.05	2	1
L23+00W 0+40SB	1	3	8	14	.1	6	1	34	.53	3	5	ND	4	5	1	2	4	13	.07	.006	7	25	.10	9	.10	2	.37	.02	.01	1	1
L23+00W 0+50SB	1	6	7	17	.1	8	2	64	1.41	5	5	ND	3	6	1	2	2	27	.09	.012	7	14	.19	12	.12	2	.64	.02	.03	1	1
L23+00W 0+60SB	1	3	6	18	.1	5	2	56	1.30	5	5	ND	4	5	1	2	2	22	.07	.009	6	13	.14	10	.10	2	.45	.01	.03	2	2
L23+00W 0+70SB	1	3	4	13	.1	7	2	52	.86	2	5	ND	6	6	1	2	3	14	.15	.031	9	13	.16	11	.07	2	.56	.01	.04	1	3
L23+00W 0+80SB	1	3	2	13	.1	8	3	68	1.01	2	5	ND	5	8	1	2	2	15	.17	.035	10	16	.19	17	.07	3	.67	.01	.03	1	2
L23+00W 1+00SA	1	28	4	56	.5	17	5	355	2.11	36	5	ND	1	43	1	2	3	18	3.46	.102	30	10	.14	92	.01	5	.58	.01	.02	1	3
L21+00W 1+00NA	1	14	18	17	.2	6	3	19	.61	3	5	ND	2	15	1	2	2	12	.15	.020	14	9	.05	46	.09	2	.52	.01	.04	1	1
L21+00W 0+90NB	1	10	9	17	.1	12	3	67	1.25	3	5	ND	6	6	1	2	4	16	.16	.030	11	14	.18	15	.09	2	.63	.01	.04	1	1
L21+00W 0+80NB	1	6	6	20	.2	9	3	106	1.00	4	5	ND	5	7	1	2	2	17	.17	.029	9	15	.26	13	.11	3	.55	.01	.04	1	4
L21+00W 0+70NA	1	44	17	51	.5	24	67	1253	1.44	5	7	ND	2	49	1	2	4	11	1.67	.114	47	10	.09	127	.01	7	1.18	.01	.05	2	3
STD C/AU-S	19	55	37	127	7.5	66	28	941	3.76	38	18	7	35	49	18	18	21	52	.43	.087	39	56	.81	163	.09	35	1.67	.06	.14	14	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L21+00W 0+60NB	1	14	11	26	.1	10	4	95	1.50	3	5	ND	2	6	1	2	2	55	.14	.009	5	34	.23	29	.11	2	.95	.04	.03	1	2
L21+00W 0+50NB	1	36	10	32	.1	7	6	114	2.80	4	5	ND	4	2	1	2	2	77	.08	.016	10	10	.24	39	.12	2	1.63	.02	.02	1	1
L21+00W 0+40NB	2	30	26	42	.1	8	8	139	7.75	7	5	ND	5	4	1	4	2	195	.07	.025	9	15	.21	51	.31	2	2.27	.02	.08	1	1
L21+00W 0+30NB	1	6	14	30	.1	8	3	115	1.37	2	5	ND	6	8	1	2	2	43	.11	.006	7	14	.29	19	.25	2	.91	.02	.04	1	1
L21+00W 0+20NB	1	15	7	25	.1	15	5	53	1.30	2	5	ND	1	8	1	2	2	42	.18	.013	2	59	.50	19	.15	2	.98	.06	.02	1	1
L21+00W 0+10NC	1	5	7	15	.1	5	3	48	.65	8	5	ND	1	3	1	2	2	21	.13	.009	3	6	.19	11	.10	2	.48	.02	.02	1	1
L21+00W 0+00NB	1	5	11	28	.1	9	3	100	1.14	62	5	ND	5	7	1	2	2	35	.09	.008	6	14	.29	13	.19	2	.74	.02	.06	1	1
L21+00W 0+10SB	1	9	8	17	.1	8	3	63	1.24	3	5	ND	7	5	1	2	2	18	.14	.028	13	13	.15	17	.09	2	.98	.02	.02	1	2
L21+00W 0+20SB	1	8	14	11	.1	4	2	36	1.32	3	5	ND	8	5	1	3	2	23	.08	.012	15	18	.10	12	.14	2	1.58	.02	.03	1	1
L21+00W 0+30SB	1	5	11	14	.1	5	2	44	.84	2	5	ND	5	7	1	2	2	19	.09	.015	10	12	.11	14	.11	2	.87	.02	.02	1	1
L21+00W 0+40SB	1	10	13	20	.1	7	2	48	1.85	3	5	ND	7	6	1	2	2	39	.09	.024	13	28	.13	14	.11	2	2.12	.02	.02	1	1
L21+00W 0+50SB	1	12	9	24	.1	11	3	68	2.94	4	5	ND	7	7	1	4	2	47	.09	.025	9	30	.18	24	.11	2	2.13	.02	.03	1	1
L21+00W 0+60SB	1	5	11	21	.1	5	2	54	1.10	2	5	ND	4	6	1	2	2	27	.07	.010	8	14	.15	15	.13	2	1.07	.02	.03	1	1
L21+00W 0+70SB	1	9	11	35	.1	7	2	60	3.10	3	5	ND	6	5	1	2	2	59	.07	.022	8	22	.16	16	.18	2	1.64	.02	.03	1	1
L21+00W 0+80SB	1	7	5	20	.1	10	3	70	1.46	2	5	ND	7	7	1	2	2	27	.14	.029	15	16	.19	21	.10	2	.91	.01	.03	2	1
L21+00W 0+90SA	1	25	15	48	.2	10	2	18	.94	2	5	ND	3	20	1	2	2	6	.07	.059	32	17	.03	70	.02	2	1.09	.02	.02	1	1
L21+00W 1+00SA	1	16	7	80	.2	7	1	26	1.64	37	5	ND	4	24	1	2	2	6	.48	.090	58	7	.04	66	.02	3	.62	.01	.01	1	1
L19+00W 1+00NC	1	7	7	15	.2	6	2	35	.36	3	5	ND	2	11	1	2	2	11	.28	.010	4	22	.15	14	.06	2	.57	.07	.02	1	1
L19+00W 0+90NA	1	16	5	38	.4	7	1	9	.52	2	5	ND	1	51	1	2	2	3	2.78	.077	31	3	.10	81	.01	4	.56	.01	.02	2	1
L19+00W 0+80NA	1	19	6	30	.3	6	1	12	.65	2	5	ND	2	27	1	2	2	3	.50	.106	35	6	.04	66	.02	2	.80	.01	.02	2	1
L19+00W 0+70NA	1	13	7	41	.3	4	1	18	.52	2	5	ND	2	25	1	2	2	3	.35	.088	20	6	.03	57	.02	2	.68	.01	.01	2	1
L19+00W 0+60NA	1	13	8	39	.2	4	1	16	.47	2	5	ND	1	26	1	2	2	2	.36	.097	13	4	.03	65	.01	2	.63	.01	.02	1	1
L19+00W 0+50NB	1	12	12	25	.1	11	4	90	1.80	2	5	ND	7	8	1	2	2	60	.11	.010	12	30	.29	20	.21	2	1.19	.02	.03	1	1
L19+00W 0+40NB	1	8	11	33	.1	13	5	77	2.22	3	5	ND	5	6	1	2	2	112	.10	.008	8	45	.37	24	.21	2	1.26	.03	.03	1	1
L19+00W 0+30NB	1	7	16	23	.1	4	2	53	1.07	6	5	ND	5	5	1	2	2	57	.07	.008	7	18	.17	19	.18	2	.88	.02	.03	1	1
L19+00W 0+20NB	1	10	11	34	.1	8	3	58	2.03	5	5	ND	10	5	1	2	2	32	.07	.023	16	26	.14	20	.12	2	2.16	.02	.02	2	3
L19+00W 0+10NB	1	5	10	24	.1	12	3	65	1.19	3	5	ND	3	8	1	3	2	44	.09	.011	8	26	.25	19	.18	2	1.10	.03	.05	1	1
L19+00W 0+00NB	1	9	14	46	.1	16	5	126	1.72	10	5	ND	7	11	1	3	2	45	.18	.016	13	27	.34	31	.19	2	1.50	.02	.08	1	2
L19+00W 0+10SB	1	34	14	75	.1	290	30	981	3.14	222	8	ND	2	20	1	2	2	78	.51	.014	5	680	2.03	48	.28	2	3.29	.04	.06	1	1
L19+00W 0+20SB	1	66	15	85	.1	317	54	1379	5.90	252	5	ND	3	15	1	2	2	115	.45	.021	9	704	2.00	57	.30	2	5.12	.03	.03	2	9
L19+00W 0+30SB	4	86	32	75	.1	67	14	210	8.91	34	5	ND	4	3	1	4	3	111	.14	.029	7	221	.31	51	.21	2	2.84	.02	.10	3	119
L19+00W 0+40SA	1	80	38	67	.1	23	2	34	1.02	2	8	ND	1	9	1	2	2	8	.15	.060	7	30	.03	53	.01	2	.98	.01	.03	1	4
L19+00W 0+50SB	1	7	15	29	.1	5	2	50	1.22	4	5	ND	5	6	1	2	2	47	.07	.016	5	20	.13	12	.18	2	.75	.02	.02	1	1
L19+00W 0+60SB	1	15	17	64	.1	23	8	239	3.87	13	5	ND	7	7	1	2	2	96	.09	.026	8	42	.65	24	.39	2	1.70	.03	.12	1	1
L19+00W 0+70SB	1	13	16	81	.2	22	8	277	3.99	8	5	ND	7	9	1	2	2	102	.10	.020	7	35	.69	34	.41	2	1.84	.02	.13	1	1
L19+00W 0+80SB	1	18	20	72	.1	26	10	282	5.92	12	5	ND	10	9	1	2	2	100	.12	.031	10	55	.70	40	.38	2	2.50	.02	.14	1	1
STD C/AU-S	21	65	44	135	7.2	75	30	1106	3.93	43	18	8	38	54	19	15	23	64	.47	.096	41	61	.88	179	.09	37	1.84	.07	.14	13	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L19+00W 0+90SB	1	12	14	58	.1	24	7	135	2.73	10	5	ND	6	10	1	2	2	66	.16	.011	12	42	.44	45	.28	2	1.56	.02	.05	1	1
L19+00W 1+00SA	1	51	10	27	.2	22	3	23	1.19	2	9	ND	7	39	1	2	2	4	.77	.055	78	16	.10	90	.03	2	1.63	.01	.03	1	1
L17+00W 1+00NB	1	15	7	16	.1	11	4	54	1.24	4	5	ND	1	8	1	2	2	30	.25	.009	3	49	.28	20	.10	2	1.04	.06	.02	1	1
L17+00W 0+90NB	1	4	8	14	.1	5	2	58	.55	2	5	ND	2	5	1	2	2	22	.19	.005	5	16	.18	18	.13	2	.59	.03	.02	1	1
L17+00W 0+80NA	1	14	10	19	.1	4	1	16	.43	2	5	ND	3	19	1	2	2	7	.57	.036	29	6	.06	42	.07	2	.46	.01	.02	1	2
L17+00W 0+70NB	1	10	7	27	.1	13	4	97	1.31	2	5	ND	4	8	1	2	2	26	.19	.031	11	18	.28	22	.13	2	.89	.01	.03	1	1
L17+00W 0+60NAB	1	12	8	28	.1	14	6	48	1.29	2	5	ND	1	8	1	2	2	39	.26	.017	10	45	.47	34	.10	2	1.21	.04	.06	1	1
L17+00W 0+50NA	1	23	7	36	.3	11	1	14	.59	3	5	ND	1	20	1	2	2	3	.67	.109	29	9	.08	46	.01	2	.77	.01	.01	2	1
L17+00W 0+40NB	1	18	8	54	.1	33	12	242	1.95	13	5	ND	6	11	1	2	2	37	.39	.019	15	29	.44	37	.18	2	1.01	.01	.06	1	2
L17+00W 0+30NA	1	21	3	33	.2	22	2	72	.29	4	5	ND	1	43	1	2	2	3	6.01	.055	19	8	.25	51	.01	6	.44	.05	.01	2	1
L17+00W 0+20NA	1	48	4	30	.3	49	2	386	.43	24	5	ND	1	38	1	2	2	4	6.58	.069	46	15	.22	50	.01	9	.49	.07	.01	2	1
L17+00W 0+10NB	1	46	14	48	.2	90	18	322	2.97	114	5	ND	5	14	1	2	2	43	1.26	.032	26	39	.39	39	.16	2	1.56	.01	.05	1	1
L17+00W 0+00NB	3	98	7	37	.2	7	3	130	11.48	17	5	ND	2	2	1	3	2	69	.07	.051	4	55	.08	14	.04	2	.39	.01	.02	3	5
L17+00W 0+10SB	1	10	13	45	.2	20	12	152	3.42	24	6	ND	2	3	1	2	2	126	.16	.011	4	64	.89	39	.15	2	1.88	.02	.07	1	2
L17+00W 0+20SB	1	23	14	93	.1	374	48	2031	7.51	959	5	ND	3	17	1	2	2	148	.44	.022	6	830	3.16	53	.34	2	5.23	.03	.04	1	1
L17+00W 0+30SB	2	41	14	79	.1	217	35	506	6.93	373	5	ND	3	4	1	2	2	152	.12	.015	5	575	1.50	42	.34	2	4.12	.02	.05	1	1
L17+00W 0+40SB	3	76	44	96	.2	445	44	5798	11.84	371	5	ND	5	8	2	2	2	94	.69	.024	16	521	1.32	69	.20	2	4.04	.01	.03	1	8
L17+00W 0+50SB	2	55	24	79	.2	44	8	203	8.39	78	5	ND	2	2	1	2	2	135	.23	.039	4	164	.40	44	.18	2	2.25	.03	.09	3	220
L17+00W 0+60SA	1	37	9	37	.1	16	2	48	.79	11	5	ND	1	10	1	2	2	18	.21	.035	16	24	.10	50	.03	2	.74	.01	.05	1	2
L17+00W 0+70SB	1	216	6	60	.1	38	35	251	6.01	40	5	ND	4	27	1	2	2	170	.71	.007	8	9	1.67	145	.29	2	4.27	.21	.06	1	1
L17+00W 0+80SB	2	9	6	19	.1	6	2	48	1.62	20	5	ND	4	6	1	2	2	47	.07	.015	6	17	.10	16	.11	2	.46	.01	.01	1	1
L17+00W 0+90SB	1	21	12	46	.2	22	6	140	2.52	21	6	ND	6	8	1	2	3	49	.14	.037	25	46	.48	29	.16	2	2.66	.02	.05	1	1
L17+00W 1+00SB	1	12	16	132	1.0	24	9	404	4.54	7	5	ND	8	13	1	2	2	65	.24	.343	9	39	.80	51	.28	2	2.31	.02	.15	1	1
L13+00W 1+30NA	1	55	13	54	.2	19	39	1076	2.03	7	8	ND	10	33	1	2	2	20	2.24	.076	167	24	.12	158	.03	3	1.68	.01	.02	1	1
L13+00W 1+20NA	1	81	9	53	.1	18	12	549	1.39	7	11	ND	12	33	1	2	2	10	2.81	.082	168	30	.08	146	.02	3	2.17	.01	.01	1	1
L13+00W 1+10NA	1	53	14	35	.2	17	10	607	1.69	5	5	ND	7	25	1	2	2	25	1.84	.057	137	26	.19	115	.05	3	1.91	.01	.03	2	1
L13+00W 1+00NA	2	16	10	59	.1	8	2	47	.58	2	5	ND	2	40	1	2	2	6	2.02	.060	36	5	.12	104	.02	3	.49	.01	.04	1	1
L13+00W 0+90NB	2	23	14	28	.1	12	5	91	1.74	5	5	ND	6	15	1	2	2	31	.68	.025	43	30	.16	60	.14	3	1.93	.01	.02	1	1
L13+00W 0+80NB	1	8	13	51	.1	21	6	81	1.61	4	5	ND	4	7	1	2	2	66	.15	.008	8	58	.47	31	.26	2	1.10	.03	.03	1	1
L13+00W 0+70NB	1	7	11	29	.1	5	2	60	.81	2	6	ND	4	4	1	2	2	41	.08	.008	7	19	.16	39	.19	2	.65	.02	.03	1	1
L13+00W 0+60NA	1	4	6	17	.1	6	3	58	.64	2	5	ND	1	6	1	2	3	21	.23	.008	2	24	.26	15	.10	2	.51	.04	.03	1	1
L13+00W 0+50NB	1	16	8	29	.1	13	6	87	2.39	2	5	ND	2	4	1	2	2	62	.25	.011	4	44	.47	29	.16	2	1.39	.04	.02	1	2
L13+00W 0+40NA	1	37	23	39	.2	22	5	42	2.94	4	5	ND	8	6	1	2	5	73	.17	.037	16	92	.22	105	.14	2	4.16	.03	.03	1	1
L13+00W 0+30NA	1	32	16	22	.1	18	3	47	1.47	2	5	ND	3	5	1	2	3	38	.17	.013	11	45	.24	70	.16	2	1.50	.02	.04	1	1
L13+00W 0+20NB	2	102	17	55	.1	336	43	282	4.16	417	5	ND	11	15	1	2	2	51	.65	.029	63	190	2.42	78	.12	3	4.04	.01	.03	1	1
L13+00W 0+10NB	1	10	10	21	.1	7	2	45	.70	37	5	ND	4	5	1	2	4	27	.10	.007	9	16	.17	21	.13	2	.64	.02	.03	1	1
STD C/AU-S	22	63	40	140	7.2	75	30	1091	4.08	43	23	8	37	53	19	13	23	62	.69	.095	44	61	.90	184	.09	38	1.80	.07	.14	13	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L13+00W 0+00NA	1	6	7	46	.1	13	7	183	2.45	70	5	ND	2	2	1	2	2	78	.14	.016	2	32	.98	35	.25	2	1.85	.02	.04	6	1
L13+00W 0+10SB	1	13	16	83	.1	129	7	257	2.84	277	5	ND	1	8	1	2	2	81	.14	.010	2	341	1.47	23	.34	2	2.30	.05	.11	1	1
L13+00W 0+20SB	2	63	16	141	.2	457	38	2917	6.79	835	5	ND	4	28	2	2	2	90	.61	.019	10	601	3.90	58	.31	2	6.14	.03	.02	1	2
L13+00W 0+30SB	1	52	14	92	.1	223	43	1640	5.87	89	5	ND	3	10	2	3	2	161	.19	.013	7	619	1.64	62	.36	2	3.99	.07	.03	1	1
L13+00W 0+40SB	2	52	16	112	.1	115	17	440	5.60	130	5	ND	3	4	1	2	2	117	.17	.024	6	286	.75	64	.23	2	3.12	.02	.05	3	1
L13+00W 0+50SB	2	19	19	68	.1	45	7	143	3.70	51	5	ND	3	6	1	2	2	101	.15	.014	7	115	.30	48	.24	2	1.87	.02	.03	1	2
L13+00W 0+60SB	1	5	5	38	.1	7	2	66	.81	7	5	ND	3	8	1	2	2	23	.09	.008	5	14	.13	21	.14	2	.51	.02	.03	1	1
L13+00W 0+70SB	1	55	16	27	.1	14	3	89	1.48	9	5	ND	2	5	1	2	2	40	.16	.023	9	14	.20	64	.06	2	1.35	.02	.02	1	1
L13+00W 0+80SA	1	89	27	44	.1	35	4	93	2.35	40	5	ND	2	3	1	2	2	65	.06	.047	13	161	.30	73	.05	2	2.61	.02	.03	1	1
L13+00W 0+90SA	1	13	9	18	.1	8	1	60	.68	4	5	ND	3	4	1	2	2	20	.04	.008	8	20	.16	22	.06	2	.84	.01	.01	1	1
L13+00W 1+00SA	1	22	15	25	.1	12	1	105	.80	5	5	ND	1	3	1	2	3	20	.06	.019	9	31	.20	34	.03	2	1.06	.01	.02	1	1
L13+00W 1+10SB	2	22	21	100	.1	30	9	244	5.48	16	5	ND	8	8	1	2	2	79	.12	.106	8	55	.75	27	.39	2	2.26	.03	.09	1	1
L13+00W 1+20SB	1	21	15	60	.2	14	5	118	2.32	7	5	ND	8	8	1	2	2	31	.14	.147	16	26	.24	31	.14	2	2.10	.02	.04	1	1
L13+00W 1+30SB	1	12	10	40	.1	9	3	77	2.03	7	5	ND	8	6	1	2	2	29	.12	.070	9	25	.19	20	.13	2	1.44	.01	.03	1	1
L13+00W 1+40SB	1	29	20	103	.2	21	8	212	4.35	6	5	ND	11	10	1	2	3	66	.17	.155	20	44	.49	48	.25	2	2.12	.02	.08	1	3
L13+00W 1+50SB	1	23	17	92	.2	24	8	238	4.90	8	5	ND	13	10	1	2	2	80	.16	.123	11	43	.66	46	.30	4	2.05	.03	.15	1	1
L13+00W 1+60SB	1	9	13	48	.1	7	3	84	2.67	5	5	ND	7	8	1	3	2	54	.10	.025	11	28	.19	26	.19	2	.98	.02	.04	1	1
L13+00W 1+70SB	1	18	17	58	.2	13	5	125	3.45	2	5	ND	10	8	1	2	3	55	.09	.047	10	42	.34	35	.19	2	2.03	.03	.09	1	1
L13+00W 1+80SB	2	21	25	102	.1	23	9	257	5.36	10	5	ND	12	9	1	2	2	84	.13	.075	14	50	.66	44	.37	2	3.13	.03	.16	1	1
L13+00W 1+90SB	1	11	16	80	.1	20	6	201	4.56	11	5	ND	8	9	1	2	2	115	.12	.046	7	52	.57	32	.44	3	1.78	.03	.10	1	1
L13+00W 2+00SB	1	19	17	57	.1	17	6	175	4.49	8	5	ND	12	10	1	2	2	80	.14	.035	19	43	.46	24	.31	2	1.69	.02	.06	1	1
L13+00W 2+10SA	1	22	5	17	.1	3	1	36	.37	3	5	ND	1	3	1	3	2	8	.01	.015	4	21	.05	18	.02	2	.41	.01	.02	1	1
L13+00W 2+20SA	2	11	12	88	.1	52	6	398	3.84	11	5	ND	5	2	1	3	2	79	.01	.009	5	174	1.44	17	.08	4	2.28	.02	.03	1	3
L13+00W 2+30SA	1	29	21	57	.1	16	4	99	1.70	7	5	ND	2	10	1	3	2	45	.10	.036	12	31	.31	48	.13	2	1.31	.03	.05	1	1
L13+00W 2+40SB	1	56	19	127	.1	35	23	364	7.90	5	5	ND	4	10	1	2	2	280	.20	.033	7	32	.56	53	.24	2	4.58	.06	.04	1	2
L13+00W 2+50SB	1	10	7	30	.1	16	4	88	1.47	2	5	ND	4	7	1	2	2	24	.13	.010	8	16	.22	25	.14	2	.89	.01	.03	1	2
L13+00W 2+60SB	1	8	6	30	.1	8	3	72	2.25	3	5	ND	6	6	1	2	3	46	.10	.023	9	21	.16	15	.15	2	.74	.01	.04	1	1
L13+00W 2+70SB	1	8	5	22	.1	8	3	63	1.37	2	5	ND	5	7	1	2	2	25	.14	.026	11	19	.16	17	.11	2	.97	.01	.03	1	1
L13+00W 2+80SA	1	24	10	67	.1	10	2	26	.52	2	5	ND	2	25	1	5	2	8	.39	.036	27	7	.05	58	.03	2	.44	.01	.03	1	1
L13+00W 2+90SA	1	20	4	95	.1	10	2	22	.19	2	5	ND	1	31	1	2	2	3	.66	.036	5	8	.10	104	.01	2	.25	.01	.02	1	1
L13+00W 3+00SA	1	5	6	154	.2	1	1	50	.08	2	5	ND	1	15	1	3	2	1	.61	.045	2	4	.10	16	.01	2	.12	.01	.05	1	1
L11+00W 2+00NB	1	11	8	30	.1	11	3	90	1.55	3	5	ND	5	8	1	3	2	30	.16	.026	10	18	.25	22	.14	2	.88	.02	.04	1	2
L11+00W 1+90NB	1	7	11	29	.1	8	3	96	1.53	5	5	ND	4	8	1	2	2	34	.12	.012	8	16	.26	17	.18	2	.77	.01	.05	1	1
L11+00W 1+80NB	1	5	5	17	.1	4	1	49	.65	2	5	ND	3	7	1	3	2	18	.09	.007	5	9	.11	17	.13	2	.38	.02	.04	1	3
L11+00W 1+70NB	1	4	5	17	.1	4	2	56	.84	2	5	ND	4	8	1	3	2	24	.11	.005	6	15	.14	15	.14	2	.53	.01	.04	1	1
L11+00W 1+60NB	2	10	18	89	.2	59	29	637	5.34	2	5	ND	5	44	1	2	2	170	.02	.036	9	148	1.95	106	.34	2	4.53	.28	.18	1	1
STD C/AU-S	21	62	41	135	7.2	69	29	1043	3.87	37	18	8	36	51	18	16	22	60	.43	.090	38	59	.87	185	.09	36	1.78	.07	.12	12	53

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L11+00W 1+50NB	1	7	6	40	.3	14	5	151	1.60	2	5	ND	5	7	1	3	2	40	.22	.010	8	37	.43	17	.19	4	.86	.02	.03	1	3
L11+00W 1+40NC	1	2	2	9	.1	3	1	21	.33	4	5	ND	1	1	1	3	2	15	.06	.004	2	4	.17	5	.07	2	.24	.02	.02	1	2
L11+00W 1+30NB	1	26	7	63	.1	17	8	210	2.14	5	5	ND	4	8	1	2	2	43	.19	.010	9	28	.59	29	.20	3	1.27	.01	.05	1	1
L11+00W 1+20NB	2	22	14	50	.1	31	12	107	3.16	4	5	ND	3	5	1	2	2	103	.17	.008	5	99	.83	38	.27	2	2.43	.04	.03	1	1
L11+00W 1+10NB	3	19	12	40	.1	60	13	78	4.08	9	5	ND	5	6	1	2	2	121	.19	.015	7	162	.84	40	.30	2	2.32	.05	.04	1	1
L11+00W 1+00NA P	1	9	4	77	.2	7	1	87	.26	2	5	ND	1	16	1	2	2	4	.60	.054	21	1	.03	78	.01	3	.88	.01	.01	1	1
L11+00W 0+90NC	2	18	18	42	.2	26	9	85	2.54	11	5	ND	2	8	1	2	2	118	.27	.020	4	145	.68	22	.24	2	1.72	.06	.05	1	1
L11+00W 0+80NC	1	11	6	28	.1	7	4	51	.77	2	5	ND	1	4	1	3	3	38	.12	.018	8	29	.24	32	.06	2	1.07	.01	.04	1	2
L11+00W 0+70NB	2	17	12	33	.1	13	7	88	3.63	7	5	ND	3	8	1	2	2	94	.29	.012	3	51	.41	44	.22	2	1.70	.04	.03	1	1
L11+00W 0+60NB	3	9	12	36	.1	24	5	75	3.09	5	5	ND	3	4	1	2	4	72	.18	.019	4	62	.37	23	.32	2	1.56	.03	.05	1	2
L11+00W 0+50NB	2	18	12	37	.2	46	9	111	3.80	8	5	ND	5	5	1	2	2	70	.17	.015	7	94	.71	22	.31	2	2.54	.04	.04	1	1
L11+00W 0+40NB	3	43	22	67	.2	27	11	184	7.14	8	7	ND	15	7	1	2	2	101	.14	.039	29	69	.64	39	.33	2	4.98	.02	.06	1	2
L11+00W 0+30NB	1	5	3	28	.1	4	2	61	.92	2	5	ND	4	20	1	2	2	28	.19	.009	8	6	.16	26	.21	2	.45	.01	.05	1	1
L11+00W 0+20NB	1	2	4	8	.1	1	1	19	.35	2	5	ND	11	6	1	3	3	9	.04	.005	10	2	.02	13	.04	2	.22	.01	.02	1	1
L11+00W 0+10NB	1	13	17	48	.2	16	5	145	1.61	4	5	ND	6	8	1	3	2	50	.16	.007	14	29	.37	31	.17	3	1.26	.02	.03	1	1
L11+00W 0+00NB	1	4	8	32	.1	5	3	98	1.50	2	5	ND	4	10	1	2	2	37	.14	.007	6	11	.27	22	.22	2	.62	.02	.05	1	1
L11+00W 0+10SB	4	24	25	35	.2	44	7	69	6.11	118	5	ND	5	6	1	3	3	85	.06	.024	13	108	.15	40	.15	2	1.01	.01	.04	1	3
L11+00W 0+20SB	3	47	13	112	.2	290	49	2752	8.08	201	5	ND	4	9	1	2	2	106	.35	.042	9	752	2.34	75	.24	2	6.92	.01	.06	1	1
L11+00W 0+30SB	3	13	14	44	.1	40	5	159	3.61	41	5	ND	2	2	1	2	3	111	.20	.013	4	112	.19	30	.16	2	.89	.01	.03	2	5
L11+00W 0+40SB	2	135	17	97	.5	307	45	826	5.31	59	5	ND	3	33	1	4	2	114	1.44	.018	12	294	1.32	101	.25	2	4.31	.17	.15	1	15
L11+00W 0+50SB	1	7	7	20	.1	6	2	53	.38	2	5	ND	3	6	1	4	2	13	.13	.009	11	10	.08	21	.08	2	.38	.01	.03	1	1
L11+00W 0+60SB	1	11	4	29	.2	21	6	118	1.33	6	5	ND	7	9	1	3	2	24	.24	.019	20	29	.34	23	.13	3	.89	.01	.05	1	1
L11+00W 0+70SB	1	9	7	23	.2	11	4	130	1.21	3	5	ND	6	9	1	2	2	22	.27	.048	18	16	.26	18	.10	2	.53	.01	.04	1	1
L11+00W 0+80SB	1	15	14	46	.1	20	7	159	1.95	17	5	ND	6	10	1	2	2	33	.29	.020	19	25	.48	34	.16	3	1.09	.01	.08	1	2
L11+00W 0+90SA	3	84	7	35	1.0	76	16	748	1.92	65	5	ND	10	38	1	2	2	19	2.90	.110	214	39	.12	75	.02	5	2.18	.01	.01	1	3
L11+00W 1+00SA	2	66	2	37	.9	88	7	477	.79	34	5	ND	5	37	1	2	2	9	4.35	.111	109	32	.12	53	.01	9	1.07	.01	.02	1	5
L11+00W 1+10SA	1	35	3	72	.2	50	12	179	.60	5	5	ND	2	33	1	2	2	7	2.63	.060	20	4	.12	52	.01	5	.61	.01	.01	1	1
L11+00W 1+20SA P	5	9	2	77	.1	7	1	136	.15	2	5	ND	1	36	1	2	2	3	3.69	.039	5	1	.18	51	.01	5	.16	.01	.01	1	3
L11+00W 1+30SA P	1	15	3	43	.3	11	1	30	.14	2	5	ND	1	41	1	2	2	2	4.08	.027	2	1	.24	59	.01	4	.13	.01	.01	2	2
L11+00W 1+40SA P	2	10	2	60	.1	6	1	118	.13	2	5	ND	1	42	1	2	2	3	4.62	.029	3	2	.25	54	.01	6	.16	.01	.01	1	1
L11+00W 1+50SA P	1	48	2	54	.2	76	1	57	.23	3	5	ND	1	50	1	2	2	3	5.51	.038	7	4	.25	72	.01	7	.23	.03	.01	1	2
L11+00W 1+60SA P	1	36	2	46	.2	41	1	22	.19	3	5	ND	1	44	1	3	2	9	4.46	.029	19	3	.24	69	.01	6	.22	.01	.01	1	1
L11+00W 1+70SA P	4	21	2	73	.1	24	1	568	.14	2	5	ND	1	48	1	2	2	7	5.11	.029	5	3	.29	77	.01	7	.17	.02	.01	1	3
L11+00W 1+80SA P	1	39	2	44	.3	32	1	310	.32	2	5	ND	2	54	1	2	2	4	5.53	.051	22	4	.30	82	.01	6	.31	.03	.02	2	2
L11+00W 1+90SA P	1	31	2	36	.2	23	1	31	.31	2	5	ND	2	51	1	2	2	3	5.31	.040	25	4	.32	64	.01	5	.31	.02	.01	1	1
L11+00W 2+00SA P	1	30	2	30	.3	23	1	18	.19	2	5	ND	3	38	1	2	2	2	4.09	.027	24	2	.23	47	.01	8	.23	.01	.01	1	2
STD C/AU-S	22	63	42	142	7.2	75	30	1085	4.15	42	21	6	37	53	19	15	21	65	.56	.093	44	61	.94	184	.09	37	1.77	.06	.15	12	47

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L11+00W 2+10SA	1	10	4	49	.2	9	1	15	.12	2	7	ND	1	34	1	2	2	2	2.99	.029	5	2	.18	41	.01	3	.14	.01	.01	2	1
L11+00W 2+20SA	1	5	2	51	.2	3	1	20	.12	2	5	ND	1	34	1	2	2	1	3.40	.030	2	2	.19	23	.01	4	.13	.01	.01	1	1
L9+00W 3+00NB	1	16	6	37	.1	17	6	119	1.37	2	5	ND	7	10	1	2	2	25	.32	.022	22	24	.28	43	.12	25	1.07	.01	.04	1	1
L9+00W 2+90NB	1	17	14	46	.1	29	11	205	3.81	2	5	ND	4	3	1	2	2	120	.06	.014	6	148	.85	34	.27	17	2.53	.03	.07	2	1
L9+00W 2+80NB	1	10	11	27	.1	6	3	75	3.02	3	5	ND	5	5	1	2	2	119	.08	.010	6	35	.18	20	.25	2	.80	.02	.03	1	1
L9+00W 2+70NB	1	11	5	36	.2	33	11	197	2.00	4	5	ND	1	3	1	2	2	89	.11	.009	2	175	.83	36	.21	22	1.42	.05	.09	2	1
L9+00W 2+60NB	1	4	10	16	.1	3	1	32	.40	2	5	ND	4	5	1	2	2	15	.07	.007	9	7	.07	18	.14	19	.36	.02	.02	1	1
L9+00W 2+50NB	1	14	7	16	.1	13	6	65	1.59	2	5	ND	12	6	1	2	2	20	.10	.014	16	17	.17	28	.10	2	1.48	.01	.02	1	26
STD C/AU-S	21	60	40	130	7.0	63	30	1006	3.86	39	22	8	44	53	19	15	20	55	.43	.091	40	59	.80	176	.08	38	1.68	.07	.13	14	49
L9+00W 2+40NB	1	8	5	25	.1	9	4	82	1.22	2	5	ND	5	7	1	2	2	20	.19	.013	10	16	.20	22	.11	2	.59	.01	.02	1	1
L9+00W 2+30NA	1	41	3	33	.2	13	5	516	.95	8	5	ND	7	29	1	2	2	7	1.08	.131	104	14	.09	69	.01	26	1.09	.01	.01	1	1
L9+00W 2+20NA	3	22	5	43	.3	7	12	2110	1.58	2	5	ND	8	32	1	2	2	16	2.02	.138	107	16	.11	93	.01	18	1.06	.01	.01	1	1
L9+00W 2+10NB	1	23	6	45	.1	21	9	317	2.19	2	5	ND	15	13	1	2	2	28	.42	.040	46	28	.41	64	.14	2	1.35	.01	.08	2	2
L9+00W 2+00NB	1	24	17	92	.1	24	12	294	3.10	5	5	ND	17	16	1	2	2	50	.59	.026	26	37	.70	110	.26	21	1.82	.01	.12	1	3
L9+00W 1+90NB	1	50	8	28	.1	8	3	74	.96	2	5	ND	8	9	1	2	2	16	.41	.020	127	14	.18	46	.08	17	1.08	.01	.04	1	1
L9+00W 1+80NB	1	4	6	20	.1	2	2	61	.79	2	5	ND	2	5	1	2	2	17	.08	.008	5	5	.15	32	.13	14	.32	.02	.11	1	2
L9+00W 1+70NB	1	4	6	18	.1	4	2	57	.72	2	5	ND	5	5	1	2	2	20	.10	.009	5	10	.10	24	.13	2	.26	.02	.06	1	1
L9+00W 1+60NB	1	31	17	37	.1	14	7	82	1.95	4	5	ND	5	5	1	2	2	45	.10	.015	11	40	.21	54	.09	2	1.96	.02	.03	1	1
L9+00W 1+50NB	1	81	6	28	.1	17	8	88	2.58	4	5	ND	3	7	1	2	2	66	.17	.013	4	70	.49	27	.21	2	1.70	.06	.03	1	1
L9+00W 1+40NBC	1	13	9	18	.1	11	5	62	1.18	2	5	ND	2	4	1	2	2	33	.17	.005	4	32	.37	24	.11	2	1.15	.04	.02	1	1
L9+00W 1+30NBC	1	7	10	13	.1	10	2	35	.53	2	5	ND	1	3	1	2	2	18	.09	.010	2	19	.17	22	.11	2	.34	.03	.03	1	2
L9+00W 1+20NB	1	4	9	14	.1	3	1	29	.59	2	5	ND	5	5	1	3	3	25	.06	.009	7	11	.06	20	.11	2	.33	.02	.03	1	1
L9+00W 1+10NB	1	6	9	28	.1	4	1	44	.73	2	5	ND	6	9	1	3	2	15	.08	.018	12	8	.08	45	.10	2	.41	.02	.07	1	1
L9+00W 1+00NB	1	25	18	112	.1	33	14	313	3.02	2	5	ND	10	9	1	2	2	51	.28	.024	11	57	.90	53	.30	2	2.06	.02	.03	1	1
L9+00W 0+90NB	1	2	6	14	.1	3	1	30	.60	2	5	ND	3	4	1	2	2	16	.06	.008	5	10	.05	12	.09	2	.22	.01	.02	1	1
L9+00W 0+80NB	1	7	11	27	.1	6	1	49	.47	2	5	ND	5	11	1	2	2	12	.17	.016	10	12	.07	34	.09	2	.30	.01	.06	1	1
L9+00W 0+70NB	1	3	4	10	.1	2	1	28	.43	2	5	ND	4	4	1	2	2	9	.06	.008	7	5	.03	13	.04	3	.15	.01	.03	1	2
L9+00W 0+60NB	1	10	12	32	.1	14	5	75	2.15	2	5	ND	10	9	1	2	2	37	.19	.012	11	31	.29	31	.16	2	1.27	.01	.06	2	1
L9+00W 0+50NB	1	18	15	74	.1	19	11	391	2.79	2	5	ND	11	17	1	2	2	38	.59	.041	27	27	.67	93	.21	2	1.94	.01	.10	1	2
L9+00W 0+40NB	1	6	10	45	.1	9	5	158	1.41	2	5	ND	6	12	1	2	2	26	.30	.010	11	15	.42	45	.22	2	.88	.01	.05	1	1
L9+00W 0+30NB	1	9	14	46	.1	12	5	133	1.51	2	5	ND	7	8	1	2	2	32	.15	.011	10	22	.40	27	.22	2	1.00	.02	.05	1	1
L9+00W 0+20NB	1	14	15	58	.1	19	8	168	2.33	2	5	ND	8	10	1	3	2	49	.14	.017	15	32	.48	39	.22	3	1.67	.02	.06	1	1
L9+00W 0+10NB	1	30	22	70	.1	23	12	356	4.42	5	5	ND	21	15	1	2	2	62	.29	.073	43	37	.55	63	.21	2	2.35	.01	.09	1	12
L9+00W 0+00NB	1	14	11	37	.1	11	5	99	1.48	4	5	ND	7	8	1	2	2	27	.12	.016	17	19	.25	28	.13	2	1.08	.01	.04	2	1
L9+00W 0+10SB	1	20	14	46	.1	18	7	155	1.95	2	5	ND	15	16	1	2	2	28	.42	.027	45	28	.32	72	.11	2	1.66	.01	.07	1	1
L9+00W 0+20SB	1	32	11	68	.3	33	13	292	3.10	4	5	ND	16	32	1	2	2	45	1.32	.047	74	58	.66	143	.14	2	2.56	.01	.11	1	1
L9+00W 0+30SB	1	9	7	26	.1	11	5	102	1.31	2	5	ND	8	9	1	2	2	20	.24	.019	15	15	.22	33	.11	2	.68	.01	.04	1	1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L9+00W 0+40SB	1	9	8	34	.1	12	5	126	1.51	3	5	ND	5	10	1	2	2	21	.29	.034	13	18	.32	34	.13	2	.81	.01	.07	1	2
L9+00W 0+50SB	1	11	14	53	.1	23	12	222	2.84	6	5	ND	9	12	1	2	2	37	.31	.017	18	33	.45	48	.19	2	1.60	.01	.09	1	1
L9+00W 0+60SB	1	12	8	39	.2	15	6	171	2.22	4	5	ND	10	15	1	2	2	29	.55	.020	25	27	.41	62	.11	2	1.33	.01	.10	2	1
L9+00W 0+70SA	1	12	2	19	.2	5	1	34	.37	2	5	ND	1	52	1	2	2	3	5.30	.044	12	4	.31	75	.01	5	.44	.01	.02	2	1
L9+00W 0+80SA	1	8	2	25	.1	3	1	14	.23	3	5	ND	1	43	1	2	2	10	4.49	.037	9	4	.27	59	.01	5	.33	.01	.01	1	1
L9+00W 0+90SA P	1	4	2	21	.1	1	1	17	.09	2	5	ND	1	31	1	2	2	1	2.94	.025	2	1	.23	31	.01	5	.10	.01	.01	1	1
L9+00W 1+00SA P	1	2	2	37	.3	1	1	13	.07	2	5	ND	1	26	1	2	2	1	2.08	.022	2	1	.27	25	.01	3	.07	.01	.01	2	2
L9+00W 1+40SA P	2	4	2	24	.1	1	1	99	.12	3	6	ND	1	24	1	2	2	3	2.14	.024	3	1	.15	33	.01	3	.14	.01	.02	1	1
L9+00W 1+50SA P	1	1	2	21	.1	1	1	13	.20	3	5	ND	1	13	1	2	2	1	.72	.031	3	* 1	.04	23	.01	2	.08	.01	.01	1	1
L9+00W 1+60SA P	1	5	4	29	.1	2	1	38	.75	2	5	ND	2	18	1	2	2	1	.89	.040	15	4	.06	43	.02	2	.22	.01	.02	1	1
L9+00W 1+80SA P	1	13	7	24	.2	4	3	72	.58	2	5	ND	3	24	1	2	2	3	.74	.073	54	6	.07	57	.01	3	.54	.01	.02	1	1
L9+00W 1+90SB P	1	5	7	20	.1	8	3	82	1.14	4	5	ND	5	7	1	2	2	16	.22	.036	11	12	.21	15	.09	2	.62	.01	.04	1	1
L9+00W 2+30SA P	2	8	3	56	.2	3	3	1443	.59	4	5	ND	2	39	1	2	2	4	3.12	.088	21	3	.20	62	.01	6	.33	.01	.03	1	1
L9+00W 2+40SA P	1	6	2	33	.1	4	1	513	.34	2	5	ND	1	35	1	2	2	2	2.84	.056	10	1	.18	48	.01	5	.22	.01	.02	2	1
L9+00W 2+50SA	1	7	2	42	.1	4	3	689	.55	2	5	ND	1	39	1	2	2	4	3.19	.065	16	3	.18	58	.01	6	.28	.01	.03	1	1
L9+00W 2+60SB	1	8	2	39	.3	9	3	113	1.00	2	5	ND	7	12	1	2	2	14	.56	.046	20	16	.32	25	.08	3	.66	.01	.08	1	1
L5+00W 2+00NB	1	9	11	25	.1	12	5	78	2.27	5	5	ND	6	7	1	2	2	29	.14	.016	10	17	.23	41	.13	2	1.41	.01	.04	1	1
L5+00W 1+90NB	1	1	7	6	.1	1	1	13	.18	2	5	ND	1	4	1	2	3	6	.05	.006	5	3	.02	6	.08	2	.22	.01	.02	1	1
L5+00W 1+80NB	1	12	5	23	.1	9	3	94	1.11	2	5	ND	5	10	1	2	2	16	.27	.042	15	14	.27	25	.10	2	.68	.01	.05	1	1
L5+00W 1+70NB	1	9	5	14	.1	13	3	60	1.29	2	5	ND	4	6	1	2	2	19	.12	.014	8	20	.23	16	.12	2	1.02	.01	.03	1	3
L5+00W 1+60NB	1	2	4	12	.1	3	1	39	.62	4	5	ND	4	5	1	2	2	14	.08	.007	7	4	.12	15	.10	3	.54	.02	.04	1	1
L5+00W 1+50NB	1	2	7	28	.1	6	3	99	1.03	2	5	ND	3	7	1	3	2	22	.12	.007	5	9	.32	16	.18	2	.67	.01	.08	1	1
L5+00W 1+40NB	1	5	7	14	.1	7	2	57	1.28	4	5	ND	4	7	1	2	3	24	.12	.012	8	12	.17	19	.13	2	.92	.01	.04	1	2
L5+00W 1+30NB	1	3	6	12	.1	2	1	32	1.19	4	5	ND	3	5	1	4	2	18	.06	.008	7	11	.08	13	.09	2	1.08	.01	.03	1	1
L5+00W 1+20NB	1	3	6	21	.3	7	3	85	1.14	2	5	ND	3	7	1	2	2	23	.11	.008	7	12	.25	14	.15	2	.68	.01	.06	1	1
L5+00W 1+10NB	1	7	8	14	.1	5	2	43	2.01	2	5	ND	6	5	1	4	3	32	.08	.015	10	17	.12	12	.11	2	1.54	.02	.04	1	1
L5+00W 1+00NB	1	1	10	13	.1	3	1	43	.75	2	5	ND	4	6	1	2	2	20	.09	.004	7	10	.11	11	.15	2	.45	.02	.05	1	1
L5+00W 0+90NB	1	1	8	8	.1	1	1	23	.35	3	5	ND	3	4	1	3	2	12	.04	.004	4	2	.06	6	.11	2	.33	.01	.03	1	6
L5+00W 0+80NB	1	6	7	14	.2	5	2	42	2.15	5	5	ND	6	4	1	2	4	21	.07	.018	10	20	.12	17	.09	2	2.13	.02	.03	1	1
L5+00W 0+70NB	1	3	11	15	.2	2	1	37	.42	2	5	ND	3	6	1	2	2	11	.07	.010	9	5	.11	16	.11	2	.45	.01	.06	1	1
L5+00W 0+60NB	1	5	7	16	.1	6	2	48	1.36	3	5	ND	3	6	1	2	2	23	.08	.011	10	16	.15	19	.10	2	1.23	.01	.04	1	1
L5+00W 0+50NB	1	12	6	23	.1	16	5	86	1.89	4	5	ND	6	7	1	2	2	22	.16	.038	12	23	.26	33	.09	3	1.84	.01	.07	1	2
L5+00W 0+40NB	1	5	10	18	.1	7	2	48	2.08	4	5	ND	6	6	1	2	2	24	.10	.019	16	17	.13	20	.10	2	1.59	.02	.03	2	1
L5+00W 0+30NB	1	7	7	15	.1	5	2	53	.75	3	5	ND	3	9	1	2	2	15	.12	.017	11	9	.16	23	.09	2	.74	.01	.05	1	2
L5+00W 0+20NB	1	8	5	24	.1	9	3	76	1.05	2	5	ND	4	11	1	2	2	16	.25	.037	17	12	.22	36	.08	2	.86	.01	.06	1	1
L5+00W 0+10NB	1	6	3	19	.1	7	3	83	1.03	3	5	ND	5	9	1	2	2	15	.22	.039	12	12	.20	15	.10	2	.53	.02	.06	1	1
STD C/AU-S	19	57	37	130	7.5	67	29	974	4.01	37	20	7	35	50	18	15	20	53	.47	.090	40	57	.86	168	.08	36	1.77	.06	.14	13	54

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L5+00N 0+00NB	1	4	2	16	.1	5	2	63	.75	5	5	ND	3	8	1	2	2	12	.21	.051	10	10	.15	13	.07	2	.40	.01	.04	1	1
L5+00N 0+10SB	1	7	11	17	.2	3	1	25	.48	3	5	ND	3	11	1	2	2	10	.16	.022	25	8	.06	23	.06	2	.58	.01	.03	2	1
L5+00N 0+20SA	1	22	13	17	.4	5	2	25	.78	2	5	ND	2	41	1	2	2	7	1.15	.082	59	12	.09	67	.01	2	.82	.01	.04	1	2
L5+00N 0+30SA P	1	10	5	40	.2	4	6	950	.94	5	5	ND	2	42	1	2	2	7	1.69	.087	50	5	.15	91	.01	5	.62	.01	.06	2	1
L5+00N 0+40SA P	1	9	3	22	.2	3	4	231	.62	6	5	ND	2	36	1	2	2	3	1.56	.097	38	4	.11	61	.01	4	.42	.01	.03	1	1
L5+00N 0+50SA P	1	10	2	42	.2	3	1	50	.42	2	5	ND	1	29	1	2	2	3	1.32	.104	20	3	.10	50	.01	4	.36	.01	.03	1	1
L5+00N 0+60SA P	1	5	2	34	.2	1	1	45	.28	2	5	ND	1	31	1	2	2	2	1.63	.059	15	1	.09	46	.01	11	.21	.01	.01	1	1
L5+00N 1+10SA P	1	2	2	41	.2	1	1	22	.22	3	5	ND	1	16	1	2	2	1	.75	.042	3	1	.05	32	.01	8	.10	.01	.03	1	1
L5+00N 1+30SA P	1	2	2	42	.1	1	1	31	.07	2	5	ND	1	12	1	2	2	1	.53	.031	2	4	.04	23	.01	2	.07	.01	.02	1	1
L5+00N 1+80SA P	1	4	2	37	.2	2	1	41	.66	4	5	ND	1	29	1	2	2	2	1.20	.077	11	2	.08	55	.01	12	.21	.01	.01	1	1
L5+00N 1+90SA P	2	5	2	54	.1	1	2	206	.27	2	6	ND	1	26	1	3	3	4	1.51	.034	5	1	.08	41	.01	4	.16	.01	.02	2	1
L5+00N 2+00SA P	1	2	2	56	.2	1	1	48	.22	2	7	ND	1	24	1	4	2	1	1.26	.040	2	1	.10	33	.01	3	.11	.01	.01	1	1
L5+00N 2+10SA P	1	2	2	56	.2	1	1	40	.09	2	7	ND	1	18	1	3	3	1	1.00	.030	2	2	.09	28	.01	2	.08	.01	.01	1	2
L5+00N 2+20SA P	1	1	2	71	.2	1	1	40	.11	2	5	ND	1	14	1	2	2	1	.65	.033	2	1	.07	24	.01	2	.06	.01	.01	1	1
L5+00N 2+30SA P	1	2	2	70	.1	1	1	82	.09	2	5	ND	1	24	1	2	2	1	1.49	.026	2	1	.08	31	.01	4	.08	.01	.01	1	1
L5+00N 2+40SA P	1	4	2	59	.2	1	1	68	.24	4	5	ND	1	30	1	2	2	3	1.92	.030	2	1	.12	40	.01	5	.10	.01	.01	1	1
L1+00N 0+00NA P	1	1	2	66	.1	1	1	44	.11	2	5	ND	1	8	1	2	3	1	.20	.021	2	1	.04	15	.01	2	.05	.01	.02	1	1
L1+00N 0+10SA P	1	2	11	123	.3	1	1	67	.10	3	5	ND	1	9	1	2	4	1	.25	.035	2	1	.05	19	.01	2	.12	.01	.04	1	2
L1+00N 0+50SA P	1	1	6	100	.1	1	1	88	.10	3	5	ND	1	9	1	2	2	1	.22	.039	2	3	.05	15	.01	2	.09	.01	.04	1	1
L1+00N 0+80SA P	1	7	2	54	.1	1	1	15	.11	2	5	ND	3	8	1	2	2	4	.18	.050	27	3	.01	25	.02	2	.56	.01	.01	2	1
L1+00N 0+90SA P	1	15	2	123	.3	4	2	59	.54	2	5	ND	3	28	1	2	2	4	.89	.063	45	3	.05	72	.02	3	.49	.01	.01	1	1
L1+00N 1+00SA P	1	9	2	59	.2	1	1	16	.22	2	5	ND	1	11	1	2	3	2	.16	.029	8	1	.03	37	.01	2	.31	.01	.03	1	1
L1+00N 1+10SB	1	10	8	26	.1	12	5	90	1.35	3	5	ND	7	10	1	2	3	21	.23	.030	19	17	.26	45	.10	2	1.17	.01	.05	1	1
L1+00N 1+20SB	1	9	6	36	.1	12	5	134	1.64	2	5	ND	4	9	1	2	2	27	.27	.039	10	16	.42	32	.14	2	.95	.01	.07	2	1
L1+00N 1+30SB	1	12	11	54	.1	19	10	187	2.70	4	5	ND	8	10	1	2	2	38	.26	.045	21	22	.56	52	.18	2	1.56	.01	.07	1	1
L1+00N 1+40SAB	1	31	16	54	.4	7	3	56	1.00	5	5	ND	3	25	1	2	2	11	.25	.059	67	10	.09	65	.03	2	.81	.01	.06	2	1
L1+00N 1+50SB	1	10	3	21	.1	37	4	73	1.19	5	5	ND	5	7	1	2	2	15	.16	.040	13	11	.23	24	.08	2	.87	.01	.04	1	2
L1+00N 1+60SB	1	4	5	13	.2	5	2	44	.60	2	5	ND	2	5	1	2	2	10	.11	.024	8	9	.13	12	.07	2	.47	.01	.03	1	1
L1+00N 1+70SA P	1	8	2	27	.2	2	1	4	.25	2	5	ND	1	6	1	2	2	2	.05	.049	12	2	.01	30	.01	2	.65	.01	.01	1	2
L1+00N 1+80SB	1	3	3	16	.1	3	2	41	1.06	4	5	ND	2	5	1	3	2	22	.07	.012	6	11	.10	8	.08	2	.38	.01	.05	1	1
L1+00N 1+90SB	1	2	2	14	.2	4	2	49	.59	2	5	ND	3	6	1	2	2	11	.14	.030	7	9	.14	10	.07	2	.37	.01	.03	1	1
L1+00N 2+00SB	1	3	3	9	.1	3	1	24	.55	3	7	ND	4	5	1	3	2	10	.07	.013	10	10	.07	9	.07	2	.31	.01	.03	1	1
L1+00N 2+10SB	1	2	2	7	.1	2	1	17	.41	2	6	ND	3	4	1	3	2	12	.04	.006	8	5	.05	8	.08	2	.51	.01	.02	1	1
L1+00N 2+20SB	1	11	9	43	.1	18	7	158	2.34	2	5	ND	9	13	1	2	2	35	.31	.030	20	30	.48	44	.14	2	1.55	.01	.08	1	1
L1+00N 2+30SB	1	13	16	49	.1	19	7	165	3.54	6	5	ND	8	9	1	2	2	48	.13	.036	13	35	.46	37	.17	6	2.19	.01	.08	3	1
L1+00N 2+40SB	1	10	3	37	.1	12	5	138	1.59	5	5	ND	9	13	1	2	2	24	.20	.030	24	23	.35	30	.12	3	1.03	.01	.07	1	1
STD C/AU-S	19	59	40	135	7.7	63	30	1003	3.92	41	26	8	37	52	19	16	20	55	.45	.094	41	57	.84	173	.09	37	1.75	.06	.13	13	51

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L1+00W 2+50SB	1	10	3	31	.1	12	5	190	1.47	4	5	ND	7	10	1	2	3	18	.34	.049	16	18	.33	35	.11	2	.79	.01	.08	1	1
L1+00W 2+60SB	1	7	3	30	.1	11	4	161	1.40	3	5	ND	7	12	1	2	2	18	.45	.050	19	21	.34	34	.11	2	.80	.01	.07	1	1
L1+00W 2+70SB	1	9	8	40	.1	12	6	188	1.78	6	5	ND	8	12	1	2	2	22	.51	.050	22	23	.38	42	.12	2	1.04	.01	.07	1	1
L1+00W 2+80SB	2	11	16	115	.2	20	12	352	3.88	4	5	ND	9	18	1	4	2	51	.64	.050	17	35	.82	101	.24	3	2.49	.01	.12	2	1
L1+00W 2+90SB	1	11	10	51	.1	17	9	156	2.20	5	5	ND	8	14	1	3	2	29	.37	.021	25	28	.40	68	.12	2	1.66	.01	.07	2	2
L1+00W 3+00SA P	1	8	3	44	.2	5	2	65	1.02	4	5	ND	2	22	1	2	2	10	.52	.077	14	14	.16	43	.04	3	.90	.01	.09	1	1
L1+00W 3+10SB	1	6	7	35	.1	11	4	133	1.69	2	5	ND	6	10	1	2	2	27	.17	.016	12	23	.39	20	.14	2	.98	.01	.07	1	1
L1+00W 3+20SB	1	6	6	29	.1	9	4	118	1.43	4	5	ND	6	9	1	2	2	20	.24	.042	15	21	.31	20	.12	2	.80	.01	.06	1	1
L1+00W 3+30SB	1	11	10	56	.1	19	8	290	2.31	5	5	ND	11	18	1	3	2	32	.42	.032	20	36	.56	60	.14	3	1.47	.01	.13	1	1
L1+00W 3+40SA	2	23	14	81	.2	35	11	270	3.02	2	5	ND	8	35	1	6	2	36	1.21	.067	48	61	.62	133	.08	4	2.52	.01	.18	4	2
L1+00W 3+50SA	1	15	6	32	.3	9	3	36	1.46	2	5	ND	6	43	1	2	2	10	3.01	.063	57	11	.23	80	.02	4	1.20	.01	.03	1	1
L1+00W 3+60SA	1	10	2	26	.1	5	1	27	.39	2	5	ND	1	45	1	2	2	3	4.02	.050	17	4	.27	55	.01	4	.47	.01	.01	1	2
L1+00W 3+70SA P	2	7	2	41	.1	3	1	122	.25	2	5	ND	1	48	1	2	2	6	4.48	.042	4	4	.30	56	.01	4	.31	.01	.01	1	1
L1+00W 3+80SA P	4	4	2	30	.1	2	1	55	.11	2	5	ND	1	40	1	2	2	3	3.83	.042	2	2	.27	36	.01	5	.13	.01	.02	1	1
L1+00W 3+90SA P	5	4	2	81	.1	2	1	567	.14	3	5	ND	1	31	1	2	2	1	2.71	.055	2	3	.23	29	.01	5	.09	.01	.02	1	1
L1+00W 4+00SA P	4	5	2	31	.1	3	1	417	.19	5	5	ND	1	41	1	2	2	9	4.11	.032	4	3	.27	38	.01	4	.16	.01	.01	1	1
L1+00W 4+10SA P	5	3	2	54	.1	1	2	918	.25	2	5	ND	1	36	1	2	2	2	3.38	.049	2	1	.25	58	.01	4	.12	.01	.02	1	1
L1+00W 4+60SA P	1	3	2	45	.3	1	1	103	.11	2	5	ND	1	34	1	2	2	1	3.17	.045	2	1	.31	29	.01	4	.07	.01	.02	1	1
L1+00W 4+70SA P	2	3	2	58	.1	1	1	112	.19	2	5	ND	1	40	1	2	2	2	3.64	.062	2	2	.33	34	.01	4	.08	.01	.01	1	1
L1+00W 4+90SA P	2	3	3	41	.1	2	1	173	.73	4	5	ND	1	40	1	2	2	2	3.26	.072	2	6	.27	45	.01	6	.09	.01	.02	1	1
L1+00W 5+00SA P	2	4	2	43	.2	1	1	386	.82	2	5	ND	1	49	1	2	2	2	4.37	.050	2	6	.27	77	.01	4	.14	.01	.02	1	1
L1+00W 5+10SA P	3	6	3	89	.1	2	1	385	.59	5	5	ND	1	32	1	2	2	3	3.05	.072	2	3	.23	48	.01	5	.14	.01	.03	1	1
L1+00W 5+20SA P	3	4	3	76	.1	2	1	163	.73	4	5	ND	1	33	1	2	2	3	3.16	.062	2	1	.22	42	.01	5	.12	.01	.02	1	1
L1+00W 5+30SA P	2	4	2	25	.1	1	1	275	1.24	5	5	ND	1	38	1	2	2	3	3.20	.066	2	2	.20	56	.01	4	.12	.01	.02	1	1
L1+00W 5+40SA P	6	5	2	36	.1	2	1	81	.27	3	5	ND	1	33	1	2	2	4	3.15	.030	4	4	.22	64	.01	3	.21	.01	.01	1	1
L1+00W 5+50SA P	3	6	3	69	.1	2	1	168	.65	6	5	ND	1	33	1	2	2	3	2.85	.054	2	4	.19	44	.01	5	.15	.01	.03	1	1
L1+00W 5+60SA P	33	10	3	26	.1	4	1	352	.17	2	5	ND	1	50	1	2	2	4	4.82	.040	4	4	.26	101	.01	5	.30	.03	.02	1	1
L1+00W 5+70SA P	4	3	2	54	.2	1	1	131	.12	3	5	ND	1	30	1	2	2	3	2.98	.036	2	1	.19	30	.01	3	.11	.01	.01	1	1
L1+00W 5+80SA P	4	5	3	70	.1	4	2	643	4.03	33	5	ND	1	41	1	2	2	6	3.57	.109	4	1	.21	91	.01	4	.09	.01	.01	1	1
L1+00W 5+90SA P	7	5	2	33	.1	2	1	385	.09	3	5	ND	1	33	1	2	2	3	3.20	.032	2	1	.18	44	.01	4	.11	.01	.02	1	1
L1+00W 6+00SA P	1	12	3	20	.1	8	3	183	.79	4	5	ND	2	44	1	2	2	9	3.86	.049	14	8	.34	58	.02	4	.52	.01	.05	1	1
L1+00W 6+10SA P	3	7	2	57	.1	2	1	248	.13	4	5	ND	1	42	1	2	2	3	4.16	.049	5	1	.24	42	.01	5	.14	.01	.03	1	1
L1+00W 6+20SA P	1	6	2	52	.1	3	1	87	.14	2	5	ND	1	47	1	2	2	2	5.15	.052	2	3	.29	46	.01	5	.17	.04	.03	1	2
L1+00W 6+30SA P	2	6	2	77	.1	2	1	506	.17	2	5	ND	1	43	1	2	2	3	4.64	.048	3	3	.28	54	.01	5	.16	.02	.02	1	2
L1+00E 1+30NA P	1	4	2	74	.1	1	1	12	.11	2	5	ND	1	13	1	2	2	2	.51	.020	8	3	.02	30	.01	2	.20	.01	.01	1	1
L1+00E 1+20NA P	1	3	7	96	.1	1	1	44	.16	3	5	ND	1	12	1	2	2	2	.41	.062	5	4	.04	24	.01	2	.17	.01	.04	1	1
STD C/AU-S	21	58	39	130	7.4	61	29	968	4.20	41	15	7	36	51	18	17	21	58	.50	.089	40	56	.84	170	.10	37	1.79	.06	.13	13	52

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB
L1+00E 1+10NA P	1	9	2	97	.1	2	1	15	.07	2	5	ND	1	12	1	4	2	2	.43	.026	7	1	.03	25	.01	2	.16	.01	.01	1	1
L1+00E 1+00NA P	1	10	2	43	.1	4	1	24	.26	2	5	ND	1	17	1	2	2	3	.47	.073	26	5	.04	39	.02	2	.34	.01	.03	1	1
L1+00E 0+90NA P	1	11	5	28	.1	11	3	95	.83	2	5	ND	1	6	1	2	2	12	.24	.023	11	9	.24	26	.08	2	.45	.03	.13	1	1
L1+00E 0+80NA P	1	9	9	31	.1	8	5	144	1.19	2	5	ND	2	12	1	2	2	23	.49	.024	15	10	.22	43	.11	2	.61	.01	.07	1	2
L1+00E 0+70NB	1	13	6	55	.1	18	10	202	2.45	2	5	ND	5	6	1	2	2	35	.25	.035	24	20	.51	29	.21	2	1.44	.02	.04	1	1
L1+00E 0+60NB	1	4	8	19	.1	7	3	46	.83	2	5	ND	3	7	1	2	2	17	.12	.013	10	11	.14	26	.09	2	.82	.01	.05	1	2
L1+00E 0+50NB	1	3	5	24	.1	2	1	24	.33	2	5	ND	1	5	1	2	2	9	.06	.015	5	5	.07	12	.07	2	.31	.01	.04	1	1
L1+00E 0+40NB	1	6	5	21	.1	9	3	61	1.06	4	5	ND	4	6	1	2	2	18	.13	.027	11	14	.18	21	.10	2	.86	.01	.06	1	2
L1+00E 0+30NB	1	2	9	20	.2	5	1	47	.54	2	5	ND	6	6	1	2	2	16	.07	.007	9	13	.14	11	.15	2	.46	.02	.05	1	2
L1+00E 0+20NB	1	2	7	22	.1	5	2	56	.82	2	5	ND	4	8	1	2	2	16	.10	.014	9	11	.19	19	.10	2	.84	.01	.05	1	1
L1+00E 0+10NB	1	4	8	42	.2	12	4	108	1.55	2	5	ND	4	8	1	2	2	36	.08	.018	6	28	.36	15	.21	2	.77	.02	.11	1	9
L1+00E 0+00NB	1	7	9	31	.1	14	4	98	1.39	4	5	ND	5	9	1	2	2	24	.13	.022	9	22	.32	27	.13	3	1.05	.01	.09	1	75

APPENDIX 5

Authors' Certifications

Author's Certification

I, Darren C. Elsby, of 6869 - 123rd Street, Surrey, British Columbia, hereby certify as follows:

1. That I graduated from Pomona College, Claremont, California with a Bachelor of Arts Degree in Geology in 1981 and from the University of British Columbia with a Master of Science Degree in Structural Geology in 1985.

2. That I have practised my profession continually since that time.

3. That I co-authored this report based on the 1987 field program on the Castor Lake Property.

Darren C. Elsby, M.Sc.

Author's Certification

I, Bruce A. Youngman, of 6565 Wiltshire Street, Vancouver, British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia with a Bachelor of Science Degree in Geology in 1981.

2. That I have practised my profession continually since that time.

3. That I co-authored this report based on the 1987 field program on the Castor Lake Property.

Bruce A. Youngman, B.Sc.

J 8598

Author's Certification

I, George Gorzynski, of 3836 West 16th Avenue, Vancouver, British Columbia, hereby certify as follows:

1. That I graduated from the University of Toronto with a Bachelor of Applied Science Degree in Geological Engineering/Mineral Exploration in 1978, and from the University of British Columbia with a Master of Applied Science Degree in Economic Geology in 1986.

2. That I have practised by profession since 1978.

3. That I co-authored this report based on the 1987 field program on the Castor Lake Property.

George Gorzynski, P.Eng.

2. 8598

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
G. A. GORZYNSKI

Ministry of Northern Affairs and Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT W8803·0

53815NW0013 2.10629 SEESEEP LAKE

900

Mining Lands.

Mining Act

– Do not use shaded areas below.

Type of Survey(s): GEOPHYSICAL (GROUND MAGNETOMETER)	Township or Area: Seesep Lake (G2284)
Claim Holder(s): NORTHERN DYNASTY EXPLORATIONS Ltd.	Prospector's Licence No.: T-1884
Address: 844 W. Hastings St. Vancouver, B.C. V6C 1C8	
Survey Company: NORTHERN DYNASTY EXPLORATIONS Ltd.	Date of Survey (from & to): (from) Day 6 Mo. 87 Yr. (to) Day 30 Mo. 6 Yr. 87 — Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): D. EISBY / B. YOUNGMAN / G. GOZDZYNSKI (SUBMITTED TO MINING LANDS SECTION IN DECEMBER, 1987)	

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer (4.55)	4.55
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	817451	
	817452	
	818424	
	818425	
	818430	
	818431	
	818458	
	818459	
	818461	
	818462	
	818463	
	818465	
	818466	
	818467	
	818468	
	818496	
	818497	
	818498	
	818499	
	818503	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED JAN 20 1988 PATRICIA MINING DIVISION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 20

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
91	Jan. 20, 1988	
	Date Approved as Recorded: 24 March 88	Branch Director

Date	Recorded Holder or Agent (Signature)
15 JAN. 1988	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: DARREN C. EISBY 844 W. Hastings St., Vancouver B.C. V6C 1C8

Date Certified	Certified by (Signature)
15 JAN. 1988	

1362 (85/9)

NOTE: The following adjustments should be noted to the TECHNICAL Data Statement (enclosed with previously submitted report (GEOTECHNICAL)):

– work performed on 20 claims total (include claims 818430, 818462

– work performed on claim 818459 (not on claim 818495)

– work performed on claim 817452 (not on claim 818452)

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey	Technical Days		Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
GROUND MAGNETOMETER	13	X 7 =	91	+	—	=	91	÷	20	=	4.55
		X 7 =		+		=		÷		=	
		X 7 =		+		=		÷		=	
		X 7 =		+		=		÷		=	

MAR 2'S

Ministry of Northern Affairs Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8803·026

Mining Lands 2.10629 Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): GEOCHEMICAL Soil SURVEY (EXPENDITURE CREDITS)
Township or Area: Seesee Lake (G 2204)
Claim Holder(s): NORTHERN DYNASTY EXPLORATIONS Ltd.
Prospector's Licence No.: T-1884
Address: 844 W. Hastings St., VANCOUVER, B.C. V6C 1C8
Survey Company: NORTHERN DYNASTY EXPLORATIONS Ltd.
Date of Survey (from & to): 01 Day | 6 Mo. | 87 Yr. | 30 Day | 6 Mo. | 87 Yr.
Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): D. EISBY / B. YOUNGMAN / G. GORZYNSKI (SUBMITTED TO MINING LANDS SECTION IN DECEMBER, 1987)

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical · Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical · Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed: SECTION 77-194 Soil GEOCHEMICAL Analyses

Performed on Claim(s): 817451, 817452, 817453, 818425, 818428, 818429, 818430, 818431, 818458, 818461, 818462, 818463, 818464, 818465, 818466, 818467, 818468, 818497, 818498, 818499, 818501, 818502, 818503

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$ 3845.00	÷	15	=	256.3

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	818424	39.45
	818425	19.95
	818426	4.0
	818427	4.0
	818428	4.0
	818429	4.0
	818431	39.45
	818432	4.0
	818433	4.0
	818434	4.0
	818435	4.0
	818457	4.0
	818460	4.0
	818462	1.0
	818464	4.0
	818465	1.0
	818466	1.0
	818469	4.0
	818495	4.0
	818499	39.45
	818500	44.0
	818501	4.0
	818502	4.0

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	818503	1.0
	818504	10.0

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JAN 29 1988
PATRICIA MINING DIVISION

Total number of mining claims covered by this report of work: 25

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
256.3	Jan. 20, 1988	
	Date Approved as Recorded: 24 March 88	Branch Director

Date	Recorded Holder or Agent (Signature)
15 JAN, 1988	

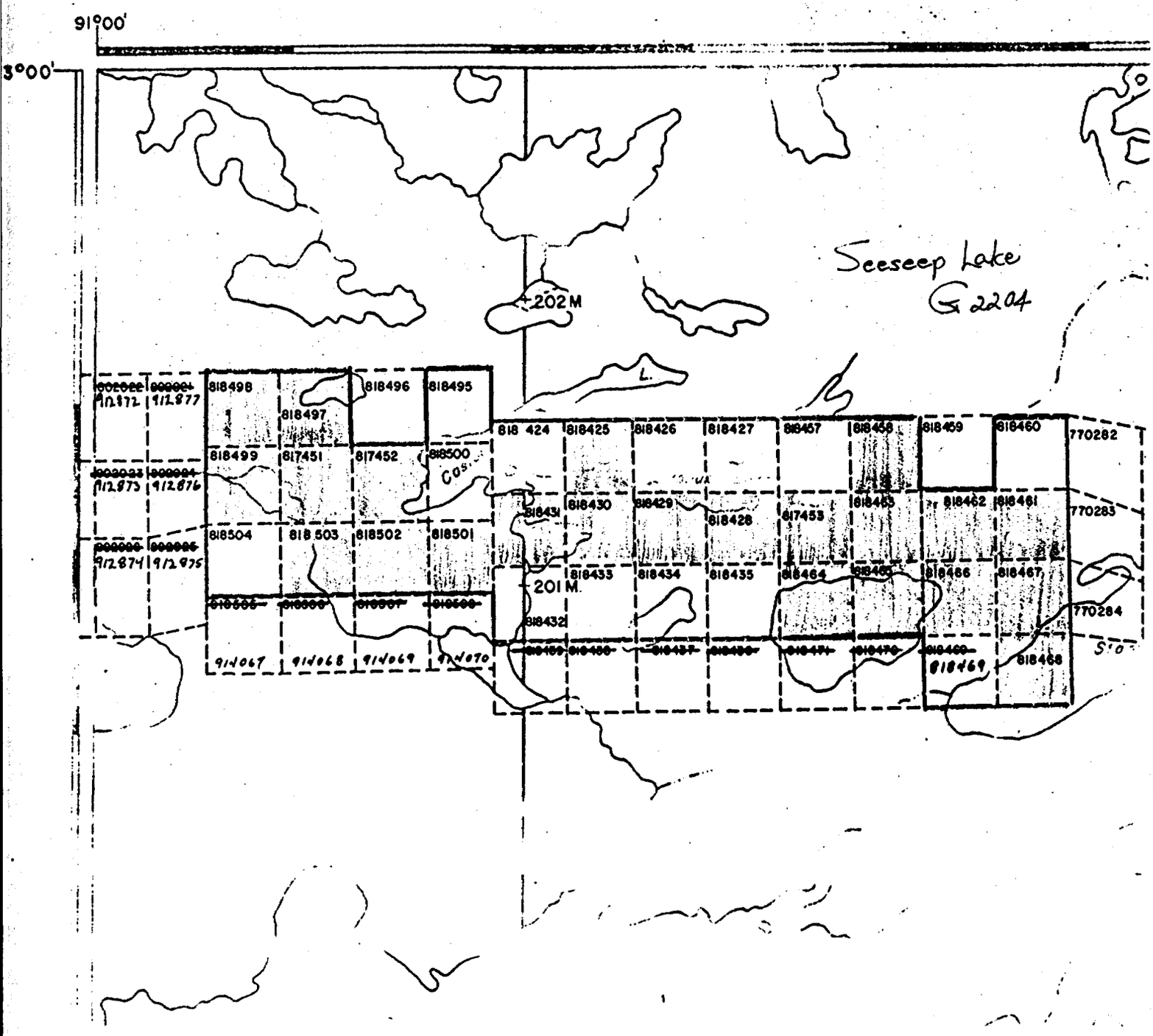
Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: DARREN C. EISBY 844 W. Hastings St., Vancouver, B.C. V6C 1C8

Date Certified	Certified by (Signature)
15 JAN., 1988	

1362 (85/9)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Seeseep Lake
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202 M
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818498
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Ministry of
Northern Development
and Mines

Ontario

Ministère du
Développement du Nord
et des Mines

January 19, 1988

Your File: 87-187 & 87-189
Our file: 2.10629

Mining Recorder
Ministry of Northern Development and Mines
Court House
P.O. Box 3000
Sioux Lookout, Ontario
P0V 2T0

Dear Sir:

RE: Notice of Intent dated December 29, 1987
Geological Survey on Mining Claims PA 81453 et al
in the Area of Seeseep Lake

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan, Manager
Mining Lands Section
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

SH:pl
Enclosure: Technical Assessment Work Credits

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Sioux Lookout, Ontario

Northern Dynasty Explorations Ltd.
844 West Hastings Street
Vancouver, B.C.
V6C 1C8

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.10629

Date: December 29,1987

Mining Recorder's Report of Work No.: 87-189

Recorded Holder: Northern Dynasty Explorations Ltd.

Township or Area: Seeseep Lake Area

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	PA 817451-53 818428-29-34-35-57-58 818461 to 468 inclusive 818497 to 499 inclusive 818501
Electromagnetic 6 days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days [X] Airborne [ ]	
Special provision [ ] Ground [X]	
[ ] Credits have been reduced because of partial coverage of claims.	
[ ] Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

[X] not sufficiently covered by the survey [ ] insufficient technical data filed

PA 818504

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File 2.10629

Date December 29,1987

Mining Recorder's Report of Work No. 87-187

Recorded Holder: Northern Dynasty Explorations Ltd.

Township or Area: Seeseep Lake Area

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	PA 817453 818424 to 435 inclusive 818457 to 469 inclusive 818495 to 504
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 16 days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

Ministry of Northern Development and Mines

Ontario

MINING LANDS

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

W8703-187 #87-187 2.10629 Dec. 11

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological Mapping	Seeseep Lake (G-2204)

Claim Holder(s)	Prospector's Licence No.
Northern Dynasty Explorations Ltd.	T-1884

Address: 844 West Hastings Street, Vancouver, B.C., V6C 1C8

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Northern Dynasty Explorations Ltd.	15 07 85 (Day / Mo. / Yr.) to 01 09 85 (Day / Mo. / Yr.)	-

Name and Address of Author (of Geo-Technical report)

G. Gorzynski, B. Youngman, D. Tupper, D. Elsby, 844 West Hastings St., Vancouver, B.C., V6C 1C8 (and 01 06 87 30 06 87)

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

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Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	817453	
	818424	
	818425	
	818426	
	818427	
	818428	
	818429	
	818430	
	818431	
	818432	
	818433	
	818434	
	818435	
	818457	
	818458	
	818459	
	818460	
	818461	
	818462	
	818463	
	818464	
	818465	
	818466	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	818467	
	818468	
	818469	
	818495	
	818496	
	818497	
	818498	
	818499	
	818500	
	818501	
	818502	
	818503	
	818504	

PATRICIA MINING DIV. RECEIVED OCT 22 1987 A.M. P.M.

Expenditures (excludes power stripping)

Type of Work Performed: May 03 1987

Performed on Claim(s): MINING LANDS SECTION

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Pa. 817451

Total number of mining claims covered by this report of work: 36

For Office Use Only		
Total Days Cr. Recorded: 720	Date Recorded: Oct. 22, 1987	Mining Recorder
	Date Approved as Recorded: See Revised Statement	Branch Director

Date	Recorded Holder or Agent (Signature)
Oct. 10, 1987	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying	Date Certified	Certified by (Signature)
B. A. Youngman, 844 West Hastings Street, Vancouver, B.C., V6C 1C8	Oct. 10, 1987	

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

MINING LANDS

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

W8703-189
#87-189
2.10629

Dec. 11

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Ground VLF-EM Survey	Township or Area: Seeseep Lake (G-2204)
Claim Holder(s): Northern Dynasty Explorations Ltd.	Prospector's Licence No.: T-1884
Address: 844 West Hastings Street, Vancouver, B.C., V6C 1C8	
Survey Company: Northern Dynasty Explorations Ltd.	Date of Survey (from & to): 01 Day 06 Mo. 87 Yr. / 30 Day 06 Mo. 87 Yr.
Name and Address of Author (of Geo-Technical report): D. Elsby, G. Gorzynski, 844 West Hastings Street, Vancouver, B.C., V6C 1C8	Total Miles of line Cut: -

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	6
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	817451	
	817453	
	818428	
	818429	
	818434	
	818435	
	818457	
	818458	
	818461	
	818462	
	818463	
	818464	
	818465	
	818466	
	818467	
	818468	
	818497	
	818498	
	818499	
	818501	
	818504	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
NOV 03 1987
MINING LANDS SECTION

PATRICIA MINING DIV.
RECEIVED
OCT 27 1987
A.M. P.M.
1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6

Pa. 817451

Total number of mining claims covered by this report of work: 21

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
126	Oct. 22/87	
	Date Approved as Recorded: See Revised Statement	Branch Director

Date: Oct. 10, 1987

Recorded Holder or Agent (Signature):

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying:
B. A. Youngman
844 West Hastings St., Vancouver, B.C., V6C 1C8

Date Certified: Oct. 10, 1987

Certified by (Signature):

1362 (85/12)

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey: Ground VLF-EM Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
18	X	7	=	126	+	-	=	126	÷	21	=	6

Type of Survey:

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey:

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey:

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Ministry of Northern Development and Mines
Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

W8703-170

#87-170

Nov. 5

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

MINING LANDS

Mining Act 2.10629

Type of Survey(s)	Township or Area
Geological Mapping	Seeseep Lake (G-2204)

Claim Holder(s)	Prospector's Licence No.
Northern Dynasty Explorations Ltd.	T-1884

Address: 844 W. Hastings St., Vancouver, B.C., V6C 1C8

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Northern Dynasty Explorations Ltd.	13 Day 07 Mo. 85 Yr. – 01 Day 09 Mo. 85 Yr.	

Name and Address of Author (of Geo-Technical report): G. Garzynski, B. Youngman, D. Tupper

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid:	- Radiometric	
Enter 20 days (for each)	- Other	
	Geological * (SEE BACK)	40
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)
Sept. 6/87	B. Youngman

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.
Pa	817451	
	817452	

PATRICIA MINING DIV.
RECEIVED
SEP 16 1987
A.M. 7,8,9,10,11,12,1,2,3,4,5,6 P.M.

RECEIVED
SEP 22 1987
MINING LANDS SECTION

Total number of mining claims covered by this report of work. 2

Pa. 817451

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
80	SEPT. 16, 1987	[signature]
	Date Approved as Recorded: 30 Dec 87	Branch Director: [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Bruce Youngman, 844 W. Hastings St., Vancouver, B.C. V6C 1C8

Date Certified	Certified by (Signature)
Sept 6/87	B. Youngman

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

Mining Lands

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

W8703-188

#87-188

2.10629

Dec. 11

Instructions: – Please type or print
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geochemical Soil Survey	Seeseep Lake (G-2204)

Claim Holder(s)	Prospector's Licence No.
Northern Dynasty Explorations Ltd.	T-1884

Address: 844 West Hastings Street, Vancouver, B.C., V6C 1C8

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Northern Dynasty Explorations Ltd.	01 06 87 (Day Mo. Yr.) 01 06 87 (Day Mo. Yr.)	-

Name and Address of Author (of Geo-Technical report): D. Elsby, G. Gorzynski, 844 West Hastings Street, Vancouver, B.C., V6C 1C8

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days		**Days per Claim**
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	9.74
Airborne Credits		**Days per Claim**
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	817451	
	817452	
	817453	
	818425	
	818428	
	818429	
	818430	
	818431	
	818458	
	818461	
	818462	
	818463	
	818464	
	818465	
	818466	
	818467	
	818468	
	818497	
	818498	
	818499	
	818501	
	818502	
	818503	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
NOV 03 1987
MINING LANDS SECTION

PATRICIA MINING DIV.
RECEIVED
OCT 2[illegible] 198[illegible]
A.M.
7 8 9 10 11 12 1 2 3 4 5 6

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 23

Pa. 817451

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
224.02	Oct. 22, 1987	
	Date Approved as Recorded 28 Dec 87	Branch Director

Date	Recorded Holder or Agent (Signature)
Oct. 10, 1987	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: B. A. Youngman

844 West Hastings Street, Vancouver, B.C., V6C 1C8

Date Certified: Oct. 10, 1987

Certified by (Signature)

1362 (85/12)

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey: Geochemical Soil Survey

Technical Days	X		=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
32	X	7	=	224	+	-	=	224	+	23	=	9.74

Type of Survey

Technical Days	X		=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

Type of Survey

Technical Days	X		=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

Type of Survey

Technical Days	X		=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	÷	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

W8703-171 #87-171

Mining Act 2.10629

Nov. 5

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

MINING LANDS

Type of Survey(s)	Township or Area
Geochemical Soil Survey (Expenditure Credits)	Seeseep Lake (G 2204)

Claim Holder(s)	Prospector's Licence No.
Northern Dynasty Explorations Ltd.	T-1884

Address: 844 W. Hastings St., Vancouver, B.C., V6C 1C8

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Northern Dynasty Explorations Ltd.	1 6 87 (Day Mo. Yr.) 30 6 87 (Day Mo. Yr.)	

Name and Address of Author (of Geo-Technical report)
G. Gorzynski / D. Elsby

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
Pa	817451	39.0
	817452	33.0
	817453	47.9
	818425	1.1
	818428	1.0
	818429	1.0
	818430	1.0
	818431	1.0
	818458	1.0
	818461	1.0
	818462	1.0
	818463	1.0
	818464	1.0
	818465	1.0
	818466	1.0
	818467	1.0
	818468	1.0
	818497	1.0
	818498	1.0
	818499	1.0
	818501	1.0
	818502	1.0
	818503	1.0

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

PATRICIA MINING DIV.
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SEP 16 1987
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

RECEIVED
SEP 22 1987
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed: Soil Geochemical Analyses SECTION 77-19

Performed on Claim(s): Pa 817451, 817452, 817453, 818425, 818428, 818429, 818430, 818431, 818458, 818461, 818462, 818463, 818464, 818465, 818466, 818467, 818468, 818497, 818498, 818499, 818501, 818502, 818503

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$ 2100.00	÷	15	=	140

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 23

Pa. 817451

Date	Recorded Holder or Agent (Signature)
Sept 6, 1987	B. Youngman

For Office Use Only

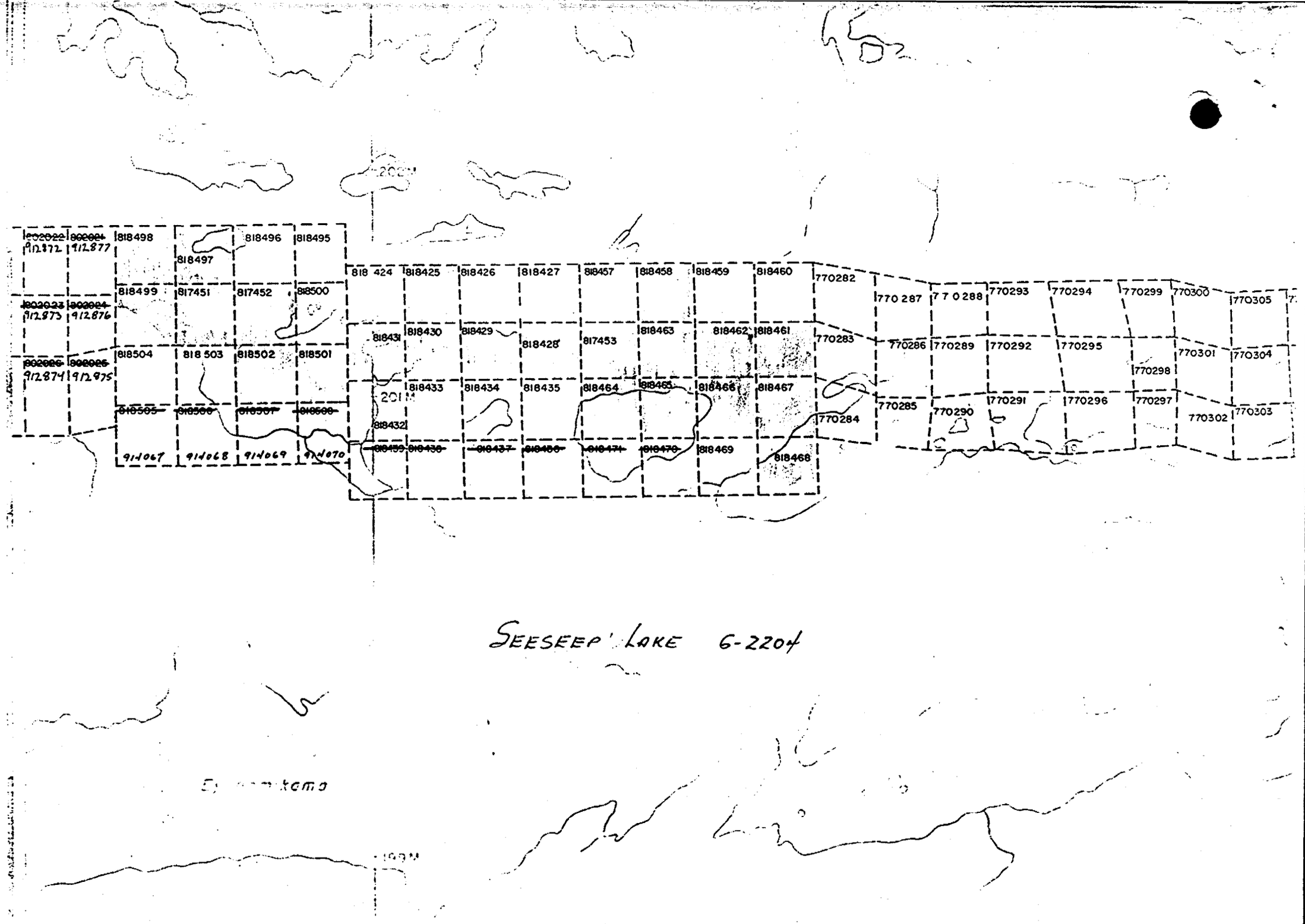
Total Days Cr. Recorded	Date Recorded	Mining Recorder
140	SEPT. 16, 1987	D. Spooner
	Date Approved as Recorded: 30 Dec 87	Branch Director:

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying	Date Certified	Certified by (Signature)
Bruce A. Youngman, 844 W. Hastings St., Vancouver, B.C.	Sept. 6/87	B. Youngman

1862 (85/12)


902022
912872
902024
912877
818498
818496
818495
818497
818499
817451
817452
818500
902023
912873
902024
912876
818504
818 503
818502
818501
902026
912874
902025
912875
818505
818506
818507
818508
914067
914068
914069
914070
818 424
818425
818426
818427
818457
818458
818459
818460
770282
770 287
77 0 288
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818466
818467
770285
770290
770291
770296
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770303
818432
770284
818439
818438
818437
818436
818471
818470
818469
818468
201
SEESEEP LAKE 6-2204

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey
Geol

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

* Previously applied magnetometer survey under Special Provisions and received only 20 credits. Therefore, applying this geological survey for complete 40 credits.

AREA NOT MAPPED
KEEYASK LAKE G-2085
ERICHSEN LAKE - G-2029
CEMETERY LAKE G-1989
Seeseep
Lake
Staunton
Hodgson
Cemetery
McGruer Lake
53°00'
52°52'30"
91°00'
90°45'
210629
LEGEND
PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
DISPOSITION OF CROWN LANDS
TYPE OF DOCUMENT
SYMBOL
PATENT, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
CANCELLED
SAND & GRAVEL
REFERENCES
AREAS WITHDRAWN FROM DISPOSITION
M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M+S - MINING AND SURFACE RIGHTS
Description
Order No
Date
Disposition
File
RECEIVED
NOV 10 1987
PATRICIA MINING DIVISION
SCALE: 1 INCH = 40 CHAINS
FEET
METRES
AREA
SEESEEP LAKE
M.N.R. ADMINISTRATIVE DISTRICT
SIOUX LOOKOUT
MINING DIVISION
PATRICIA
LAND TITLES / REGISTRY DIVISION
KENORA (PATRICIA PORTION)
Ministry of Natural Resources
Ontario
G-2204
53B15NW0013 2.10629 SEESEEP LAKE
200

LEGEND

METAMORPHIC ROCK TYPES

PHYLLITE

Pt – phyllitic turbidite ± quartz – biotite – chlorite schist

DEBRIS FLOW

Dc – sedimentary debris flow, contains flattened and sheared polymictic conglomerate – breccia

PELITIC SCHIST

St – schistose turbidite, chlorite – biotite – quartz – garnet schist

Sc – chlorite schist ± garnet ± biotite

Scr – chlorite schist containing positive relief ribs of chlorite and amphibole ± garnet

CHEMICAL SEDIMENTS

If – quartzite – grunerite – iron formation ± chert ± argillite

MAFIC VOLCANICS

Vm – chlorite schist, massive aphanitic to medium grained, contains flattened pillows

Vg – coarse chlorite schist containing amphibole and pyroxene, often has gabbroic texture

ULTRAMAFICS

Um – carbonate – talc – serpentine schist ± actinolite

Uc – carbonate schist ± chromium mica

ACCESSORY MINERALS

As — arsenopyrite
Py — pyrite
Po — pyrrhotite
Mg — magnesite
Gr — grunerite
To — tourmaline
Cm — chromium mica
Gt — garnet
At — actinolite

STRUCTURAL GEOLOGICAL SYMBOLS

- primary regional metamorphic foliation
- phase – two mineral lineation
- phase – two minor fold axis with sense of rotation
- antiformal axial trace
- diamond drill hole
- trench
- claim lines with post
- treed swamp, muskeg
- open swamp, muskeg
- fault
- geological contact
- inferred geological contact

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GEOLOGY

NTS: 53B/15, SEESEEP LAKE G-2204

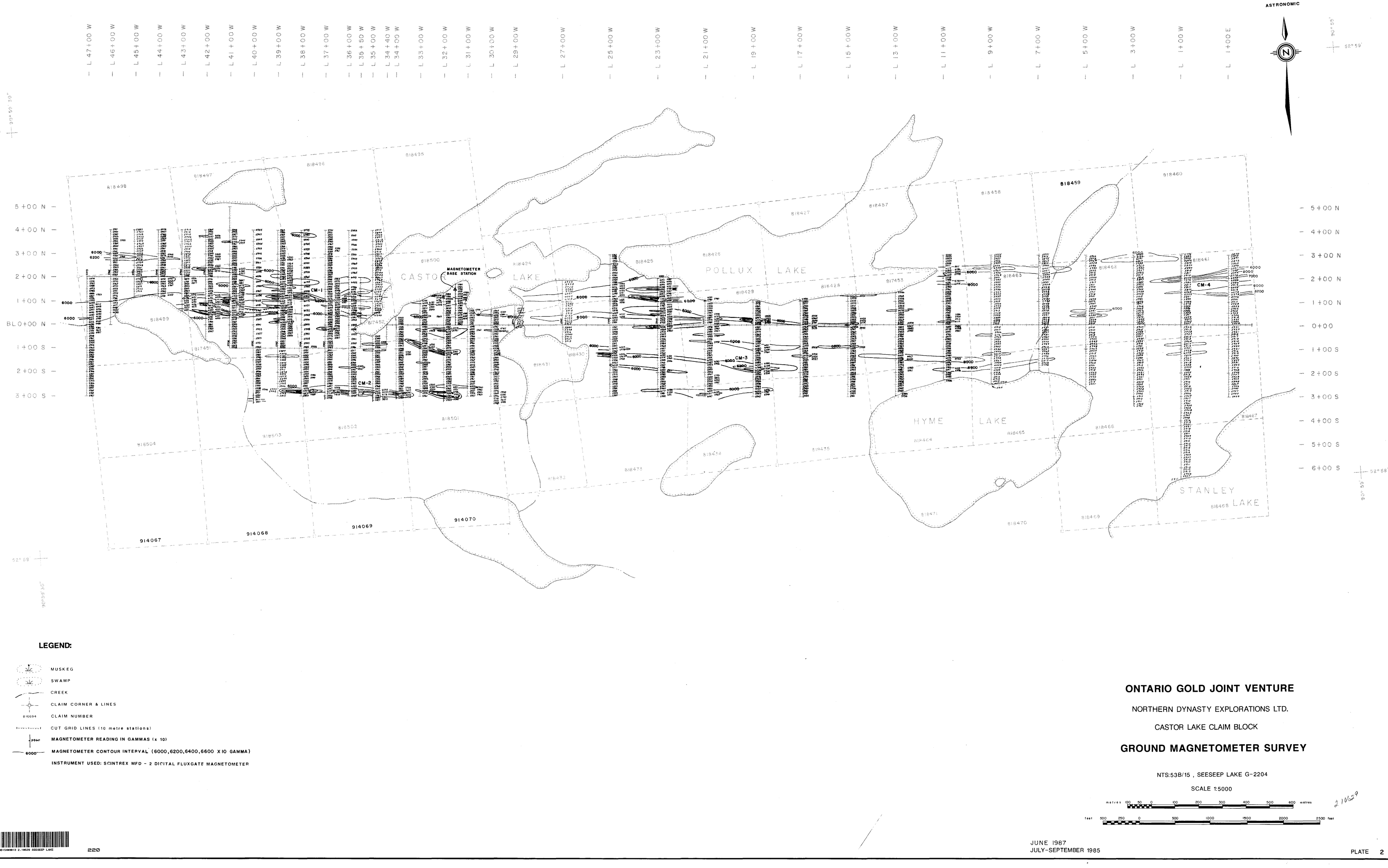
SCALE 1:5,000

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

JUNE 1987

PLATE 1



LEGEND:

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 818694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- 2960 MAGNETOMETER READING IN GAMMAS (x 10)
- 6000 MAGNETOMETER CONTOUR INTERVAL (6000,6200,6400,6600 X10 GAMMA)

INSTRUMENT USED: SCINTREX MFD - 2 DICITAL FLUXGATE MAGNETOMETER

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GROUND MAGNETOMETER SURVEY

NTS:53B/15 , SEESEEP LAKE G-2204

SCALE 1:5000

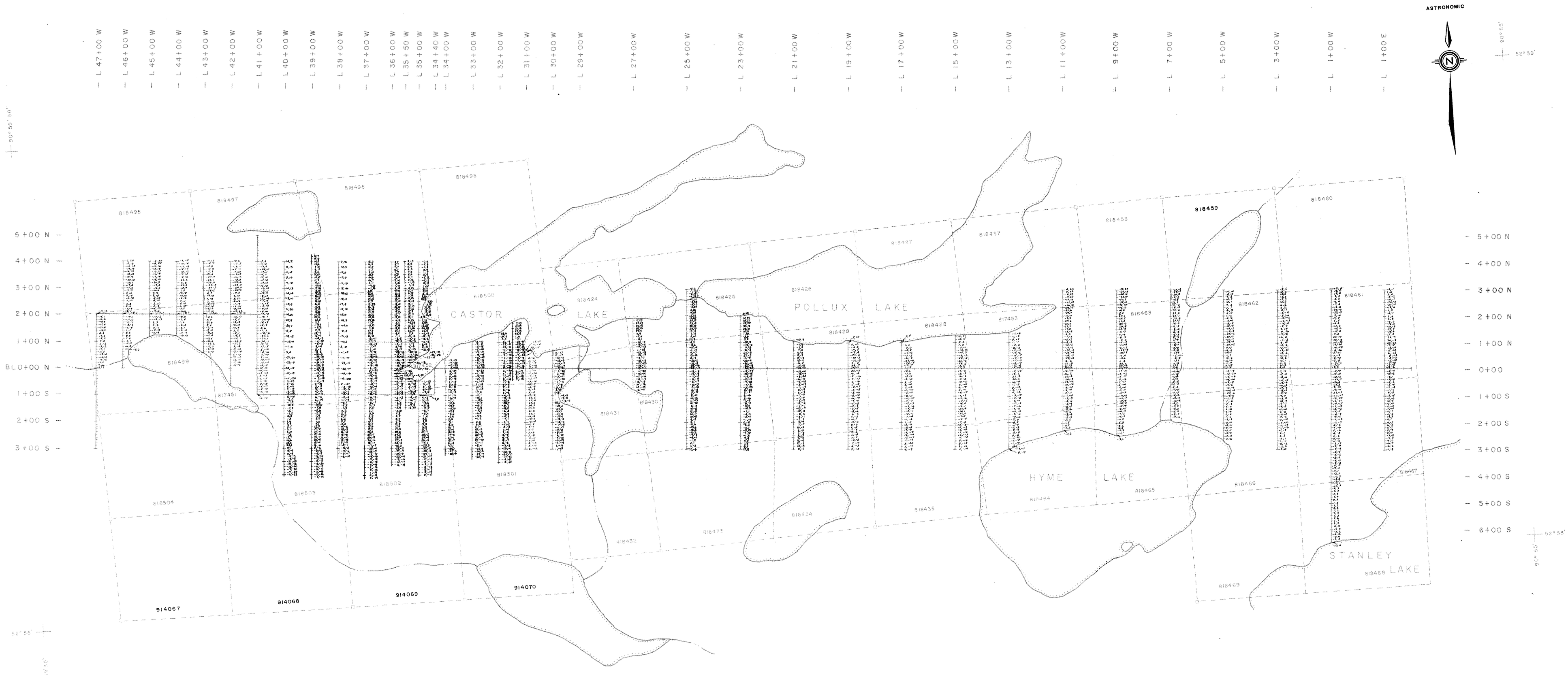
metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

JUNE 1987
JULY-SEPTEMBER 1985

PLATE 2

220



LEGEND:

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 818694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- +4,-22 GRID STATIONS WITH INPHASE VALUES IN DEGREES, QUADRATURE IN PERCENT

INSTRUMENT : GEONICS RONKA EM-16

TRANSMITTER : CUTLER , MAINE , U.S.A.

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GROUND ELECTROMAGNETIC SURVEY - VALUES

NTS:53B/15 , SEESEEP LAKE G-2204

SCALE 1:5000

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

2106#9

JUNE 1987
JULY-SEPTEMBER 1985

PLATE 3

230

L 47+00 W | L 46+00 W | L 45+00 W | L 44+00 W | L 43+00 W | L 42+00 W | L 41+00 W | L 40+00 W | L 39+00 W | L 38+00 W | L 37+00 W | L 36+00 W | L 35+50 W | L 35+00 W | L 34+40 W | L 34+00 W | L 33+00 W | L 32+00 W | L 31+00 W | L 30+00 W | L 29+00 W | L 27+00 W | L 25+00 W | L 23+00 W | L 21+00 W | L 19+00 W | L 17+00 W | L 15+00 W | L 13+00 W | L 11+00 W | L 9+00 W | L 7+00 W | L 5+00 W | L 3+00 W | L 1+00 W | L 1+00 E

52°59' — 90°59'30"

5+00 N | 4+00 N | 3+00 N | 2+00 N | 1+00 N | BL 0+00 N | 1+00 S | 2+00 S | 3+00 S

818498 | 818497 | 818496 | 818495 | 818500 | 818424 | 818425 | 818426 | 818427 | 818457 | 818458 | 818459 | 818460 | 818461 | 818462 | 818463 | 817453 | 818428 | 818429 | 817452 | 818499 | 817451 | 818430 | 818431 | 818504 | 818503 | 818502 | 818501 | 818434 | 818435 | 818464 | 818465 | 818466 | 818467 | 818433 | 818432 | 818468 | 818469 | 914067 | 914068 | 914069 | 914070

CASTOR LAKE | POLLUX LAKE | HYME LAKE | STANLEY LAKE

90°55' — 52°59'

ASTRONOMIC

5+00 N | 4+00 N | 3+00 N | 2+00 N | 1+00 N | 0+00 | 1+00 S | 2+00 S | 3+00 S | 4+00 S | 5+00 S | 6+00 S

52°58' — 90°58'30"

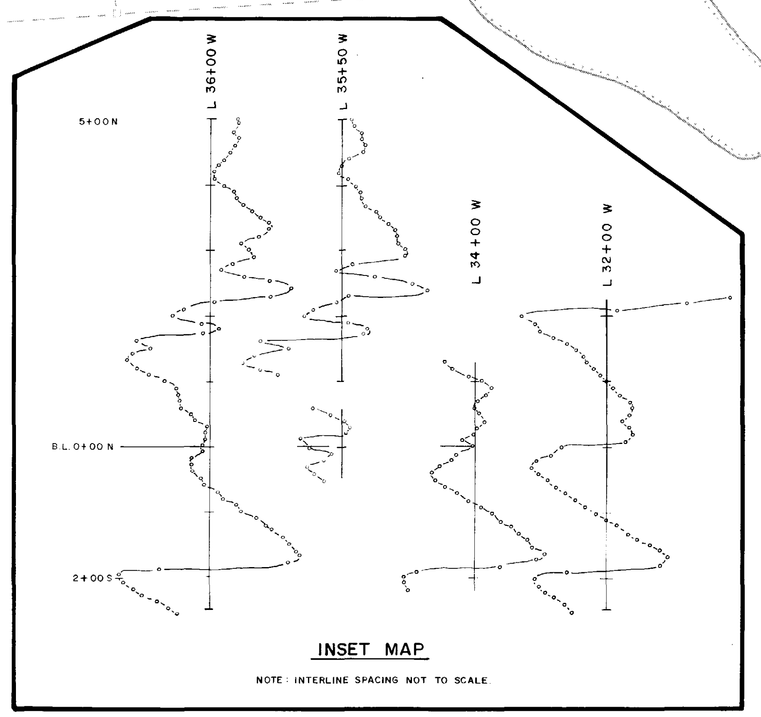
LEGEND:

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- INPHASE PROFILE (1 cm = 10 %)
- QUADRATURE PROFILE (1 cm = 10 %)

TRANSMITTER : CUTLER, MAINE, U.S.A.

INSTRUMENT : GEONICS RONKA EM-16

+10% 0 -10% PROFILE SCALE



INSET MAP

NOTE : INTERLINE SPACING NOT TO SCALE

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GROUND ELECTROMAGNETIC SURVEY - PROFILES

IN-PHASE

NTS: 53B/15 , SEESEEP LAKE G-2204

SCALE 1:5,000

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

2.10629

JUNE 1987

PLATE 4

240

L 47+00 W | L 46+00 W | L 45+00 W | L 44+00 W | L 43+00 W | L 42+00 W | L 41+00 W | L 40+00 W | L 39+00 W | L 38+00 W | L 37+00 W | L 36+00 W | L 35+50 W | L 35+00 W | L 34+40 W | L 34+00 W | L 33+00 W | L 32+00 W | L 31+00 W | L 30+00 W | L 29+00 W | L 27+00 W | L 25+00 W | L 23+00 W | L 21+00 W | L 19+00 W | L 17+00 W | L 15+00 W | L 13+00 W | L 11+00 W | L 9+00 W | L 7+00 W | L 5+00 W | L 3+00 W | L 1+00 W | L 1+00 E

52°59' — 90°59'30"

5+00 N | 4+00 N | 3+00 N | 2+00 N | 1+00 N | BL 0+00 N | 1+00 S | 2+00 S | 3+00 S

818498 | 818497 | 818496 | 818495 | 818500 | 818424 | 818425 | 818426 | 818427 | 818457 | 818458 | 818459 | 818460 | 818461 | 818462 | 818463 | 818428 | 817453 | 818429 | 818430 | 818431 | 818499 | 817461 | 818502 | 818501 | 818503 | 818504 | 818434 | 818435 | 818432 | 818433 | 818464 | 818465 | 818466 | 818467 | 818468 | 818469 | 914067 | 914068 | 914069 | 914070

CASTOR LAKE

POLLUX LAKE

HYME LAKE

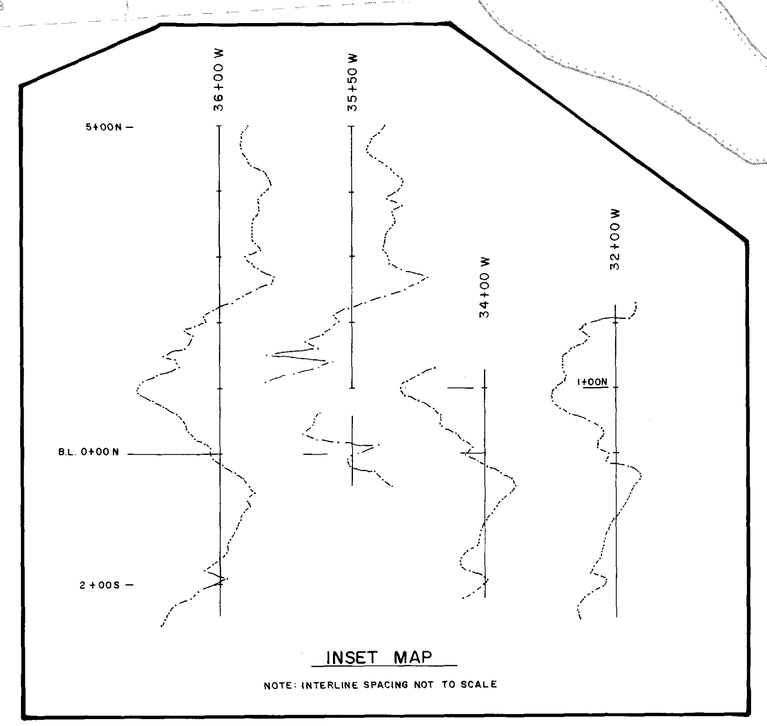
STANLEY LAKE

ASTRONOMIC

52°58' — 90°55'

5+00 N | 4+00 N | 3+00 N | 2+00 N | 1+00 N | 0+00 | 1+00 S | 2+00 S | 3+00 S | 4+00 S | 5+00 S | 6+00 S

52°58' — 90°55'30"



INSET MAP

NOTE: INTERLINE SPACING NOT TO SCALE

LEGEND:

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- INPHASE PROFILE (1 cm = 10 %)
- QUADRATURE PROFILE (1 cm = 10 %)

TRANSMITTER : CUTLER, MAINE, U.S.A.

INSTRUMENT : GEONICS RONKA EM-16

+10% 0 -10% PROFILE SCALE

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GROUND ELECTROMAGNETIC SURVEY - PROFILES

QUADRATURE

NTS: 53B/15 , SEESEEP LAKE G-2204

SCALE 1:5,000

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

JUNE 1987

PLATE 5

250

LEGEND

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- TRANSMITTER : CUTLER, MAINE, U.S.A.
- INSTRUMENT : GEONICS RONKA EM-16

FRASER FILTER CONTOUR INTERVALS

- 0
- 20
- 40
- 60
- 80
- 100
- 120

CE-3 CONDUCTORS

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

GROUND ELECTROMAGNETIC SURVEY
FRASER FILTER PLOT

NTS: 53B/15 , SEESEEP LAKE G-2204

SCALE 1:5,000

2.10629

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

JUNE 1987

PLATE 6

260


L 47+00 W
L 46+00 W
L 45+00 W
L 44+00 W
L 43+00 W
L 42+00 W
L 41+00 W
L 40+00 W
L 39+00 W
L 38+00 W
L 37+00 W
L 36+00 W
L 35+50 W
L 35+00 W
L 34+40 W
L 34+00 W
L 33+00 W
L 32+00 W
L 31+00 W
L 30+00 W
L 29+00 W
L 27+00 W
L 25+00 W
L 23+00 W
L 21+00 W
L 19+00 W
L 17+00 W
L 15+00 W
L 13+00 W
L 11+00 W
L 9+00 W
L 7+00 W
L 5+00 W
L 3+00 W
L 1+00 W
L 1+00 E
5+00 N
4+00 N
3+00 N
2+00 N
1+00 N
BL 0+00 N
1+00 S
2+00 S
3+00 S
0+00
4+00 S
5+00 S
6+00 S
CC-1
CC-2
CC-3
CASTOR
LAKE
POLLUX
LAKE
HYME
LAKE
STANLEY
LAKE
ASTRONOMIC
52°59'
90°55'
52°58'
90°59'30"
818498
818497
818496
818495
818500
818424
818425
818426
818427
818457
818458
818459
818460
818461
818462
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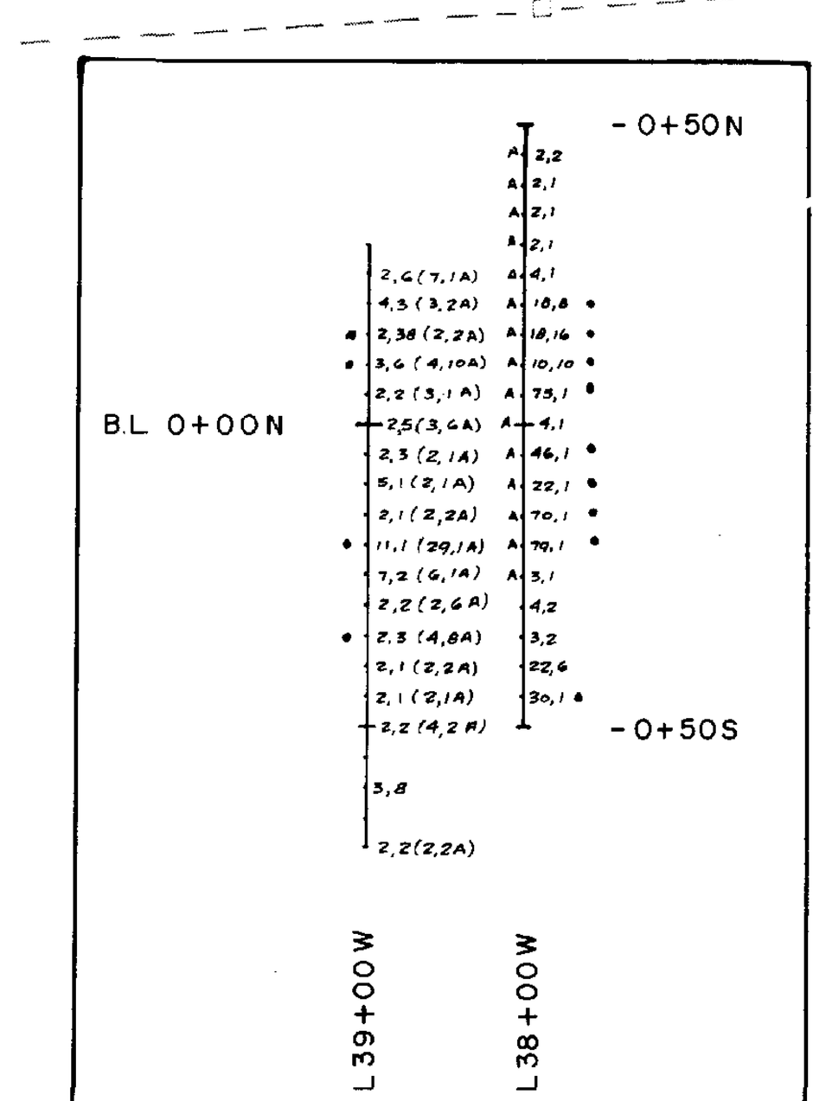
914067



INSET GEOCHEMISTY DETAIL

LEGEND:

MUSKEG

SWAMP

CREEK

CLAIM CORNER & LINES

CLAIM NUMBER

CUT GRID LINES (10 metre stations)

SOIL SAMPLE LINE WITH As in p.p.m. & Au in p.p.b. (• = ANOMALOUS SAMPLES)
AN 'A' INDICATES A-SOIL HORIZON, ALL OTHER SAMPLES ARE B-SOIL HORIZON.

MAIN ANOMALOUS TRENDS

SOIL ANOMALY THRESHOLDS

	Au(ppb)	As(ppm)
A-HORIZON	7	20
B-HORIZON	15	30

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

As,Au – GRID SOIL GEOCHEMISTRY

NTS 53 B/15, SEESEEP LAKE G-2204

SCALE 1:5000

metres 100 50 0 100 200 300 400 500 600 metres

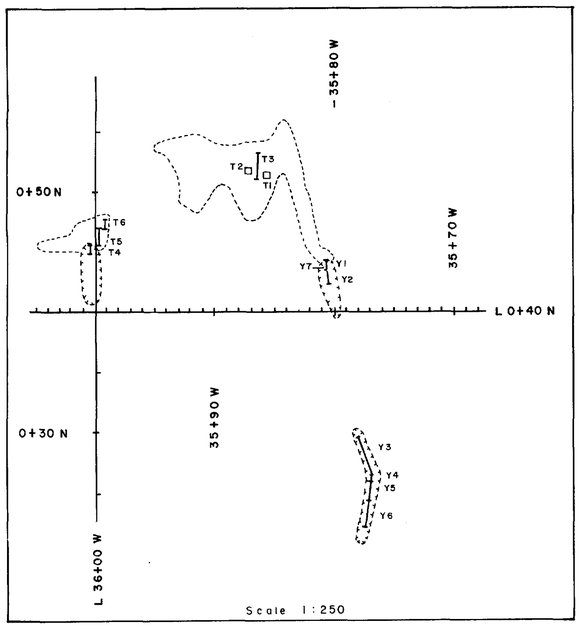
feet 500 250 0 500 1000 1500 2000 2500 feet

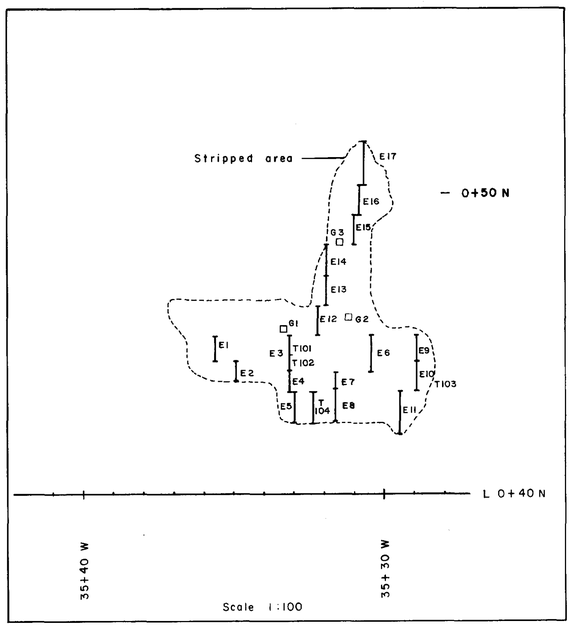
JULY – SEPTEMBER 1985

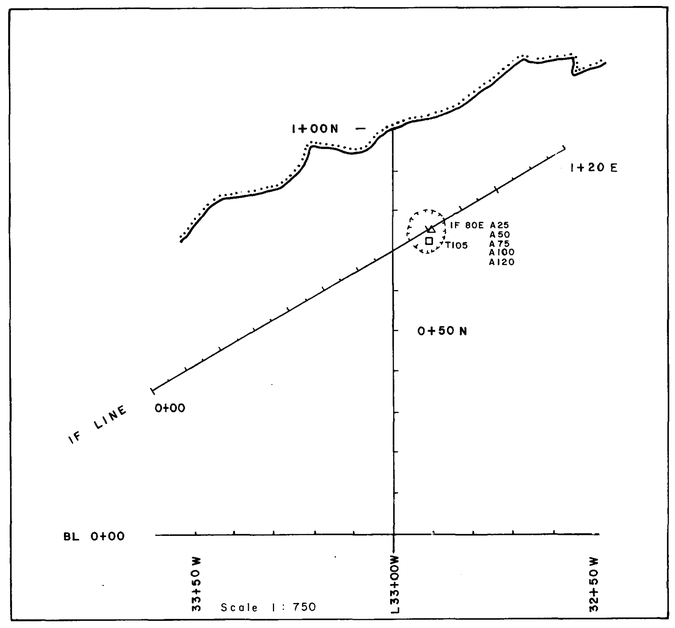
JUNE 1987

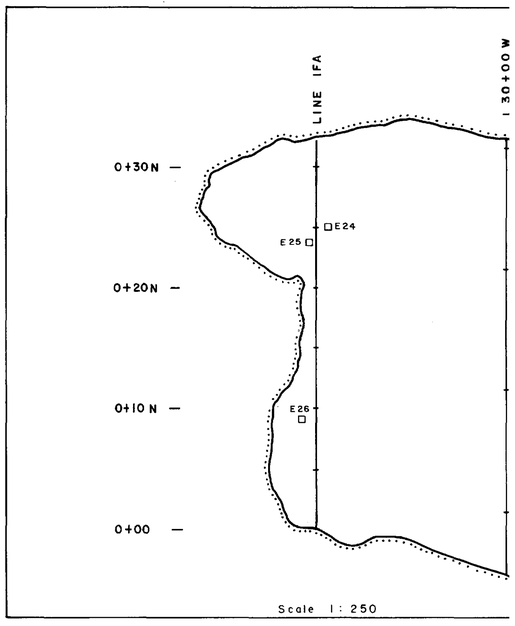
PLATE 7

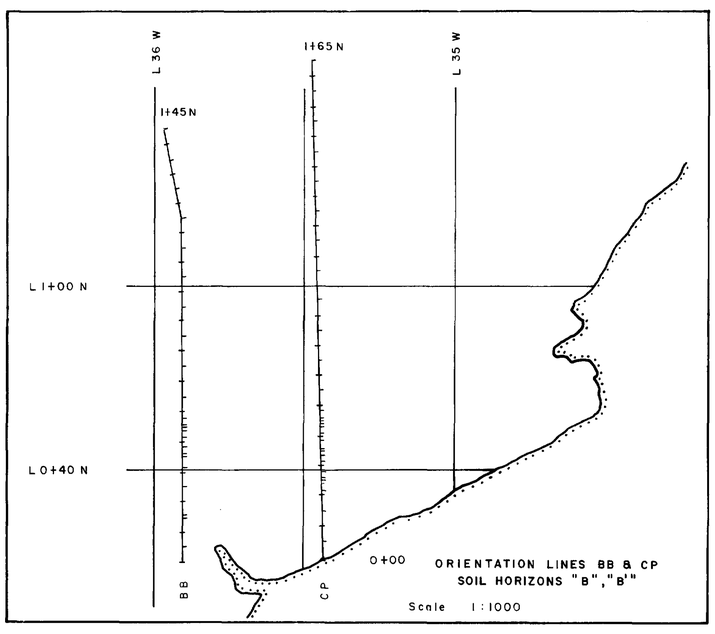
270





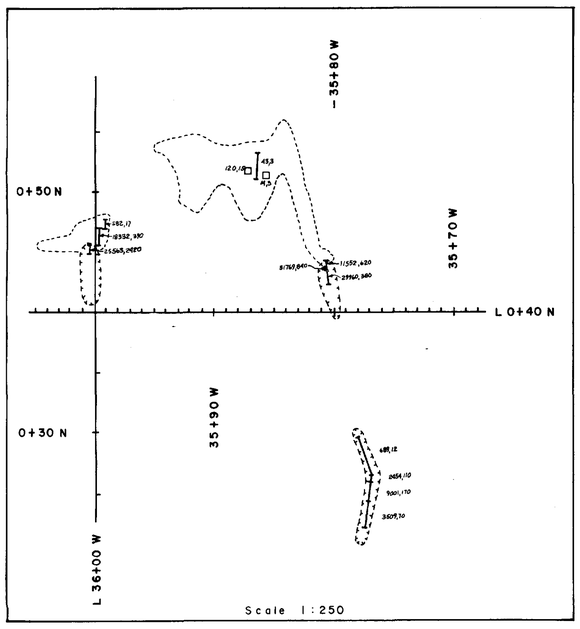


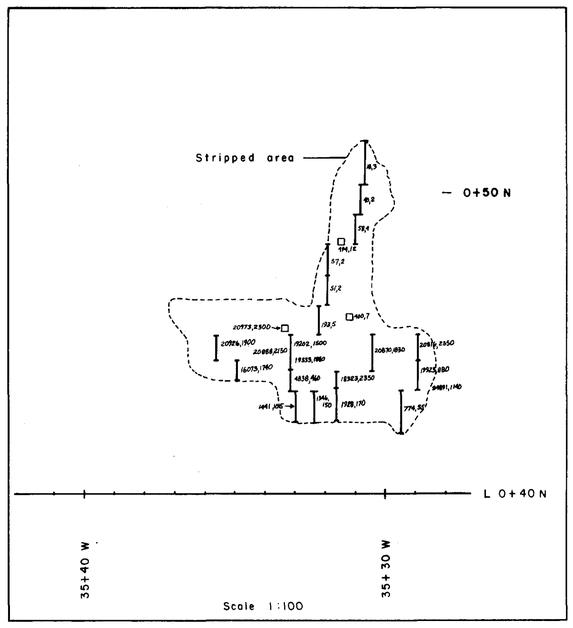


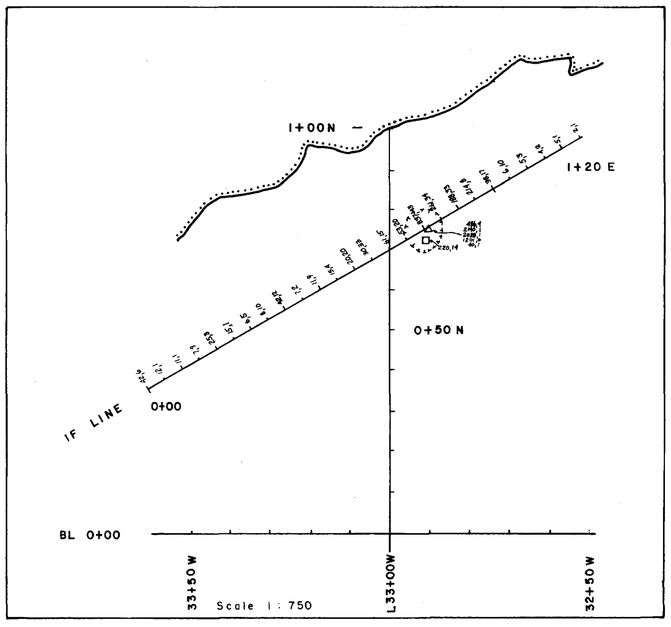


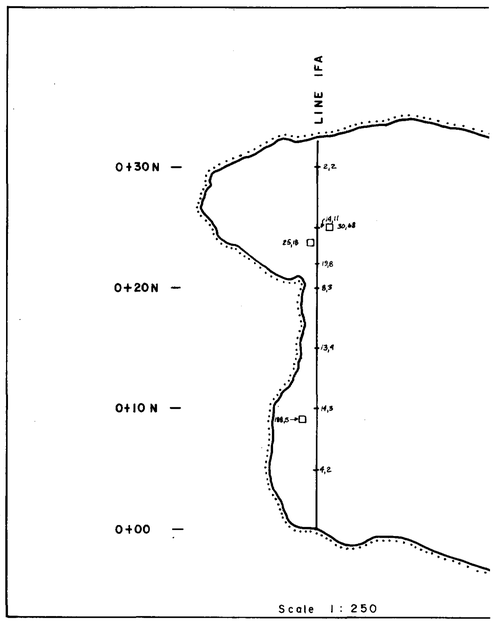
LEGEND

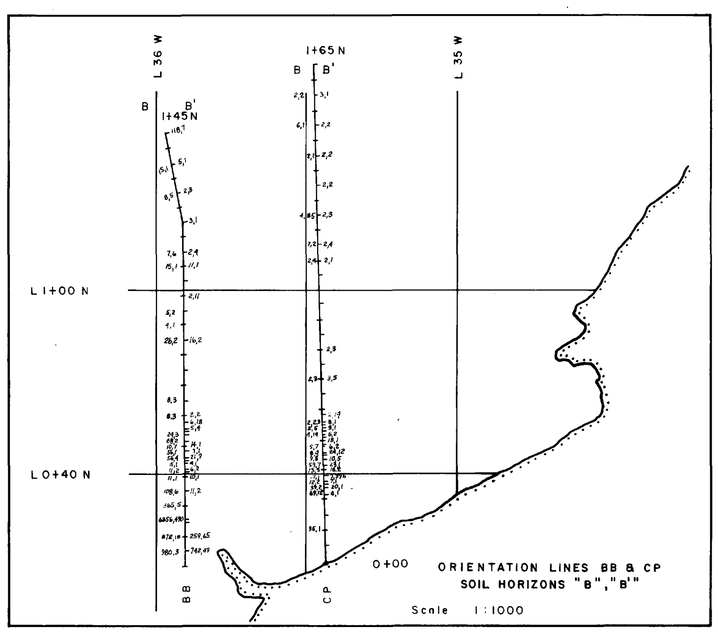
- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 — CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- Δ^{T12} — SOIL SAMPLE LOCATION AND NUMBER
- $\square^{G5}$ — ROCK SAMPLE LOCATION AND NUMBER
- $\odot^{E1}$ — STREAM SEDIMENT SAMPLE LOCATION AND NUMBER
- $\vdash^{Y3}$ — CHANNEL SAMPLE LOCATION AND NUMBER
- STRIPPED AREA
- TRENCH OR PIT
- APPROXIMATE GEOLOGIC CONTACT









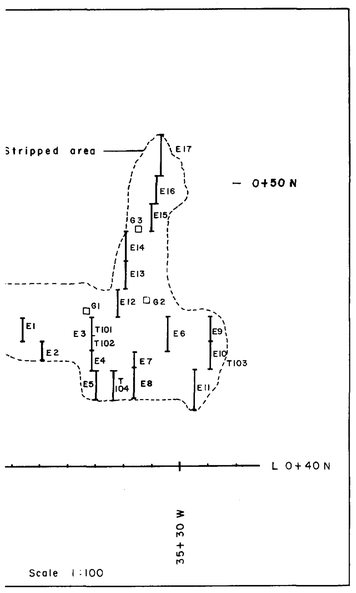


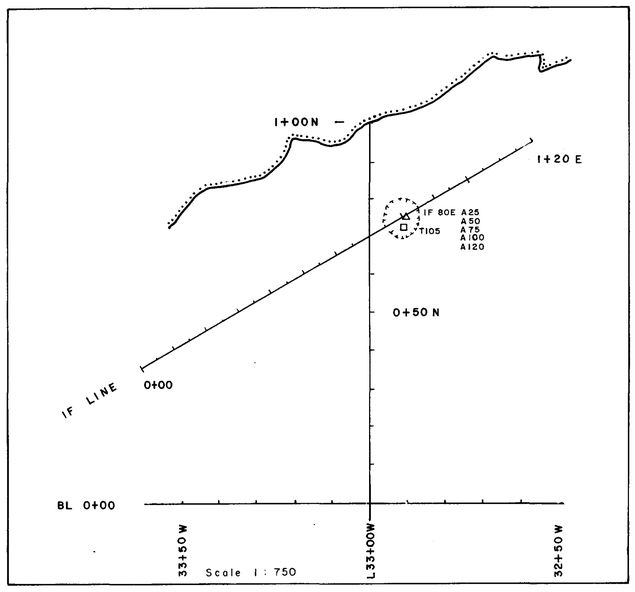
LEGEND

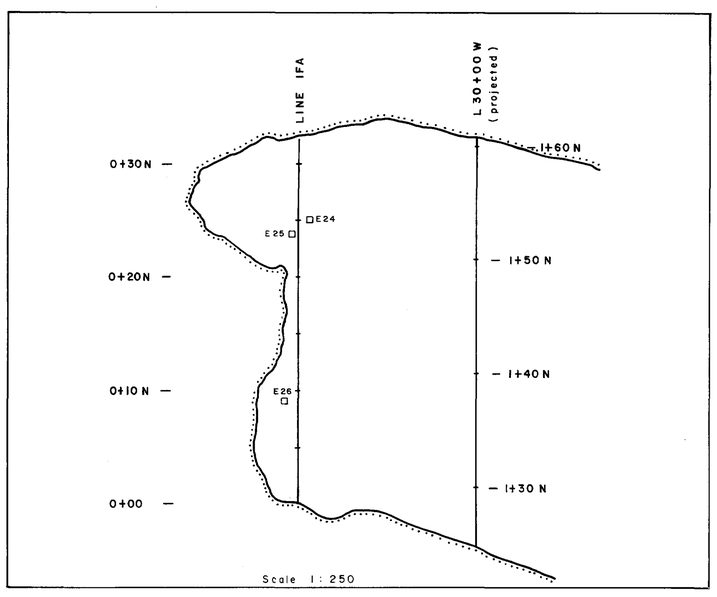
- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- SOIL SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- ROCK SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- STREAM SEDIMENT SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- CHANNEL SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- STRIPPED AREA
- TRENCH OR PIT

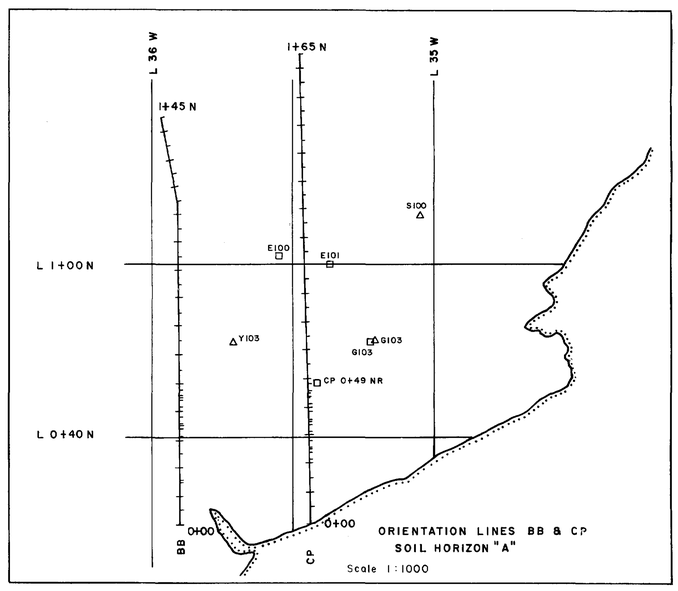
1987 DETAILED SAMPLING

CO-ORDINATE	ARSENIC IN PPM	GOLD IN PPB
ROCKS		
L 32 0+20N R1	265	810
L 32 0+20N R2	263	17
L 32 0+19 N R1	2635	195
L 32 0+19N R2	471	56
L 32 0+10N	144	13
L 31+90 0+20N R	2146	43
L 31+50 0+19 N R	162	26
L 31 0+20N R	5316	112
L 30+70 0+20N R	966	185
L 30+50 0+20N R	373	53
SOILS		
L 32 0+20 N B	1590	32
L 32 0+19 N B	3271	135
L 32 0+11 N B	115	21
L 32 0+10 N B	187	20
L 32 0+09 N B	127	12
L 32 0+08 N B	121	14
L 32 0+07 N B	121	6
L 31+90 0+20 NB	3179	590
L 31+90 0+19 NB	1079	36
L 31+90 0+18 NB	2756	57
L 31+50 0+20NB	777	88
L 31+50 0+19 NB	1506	98
L 31 0+20 NB	14265	820



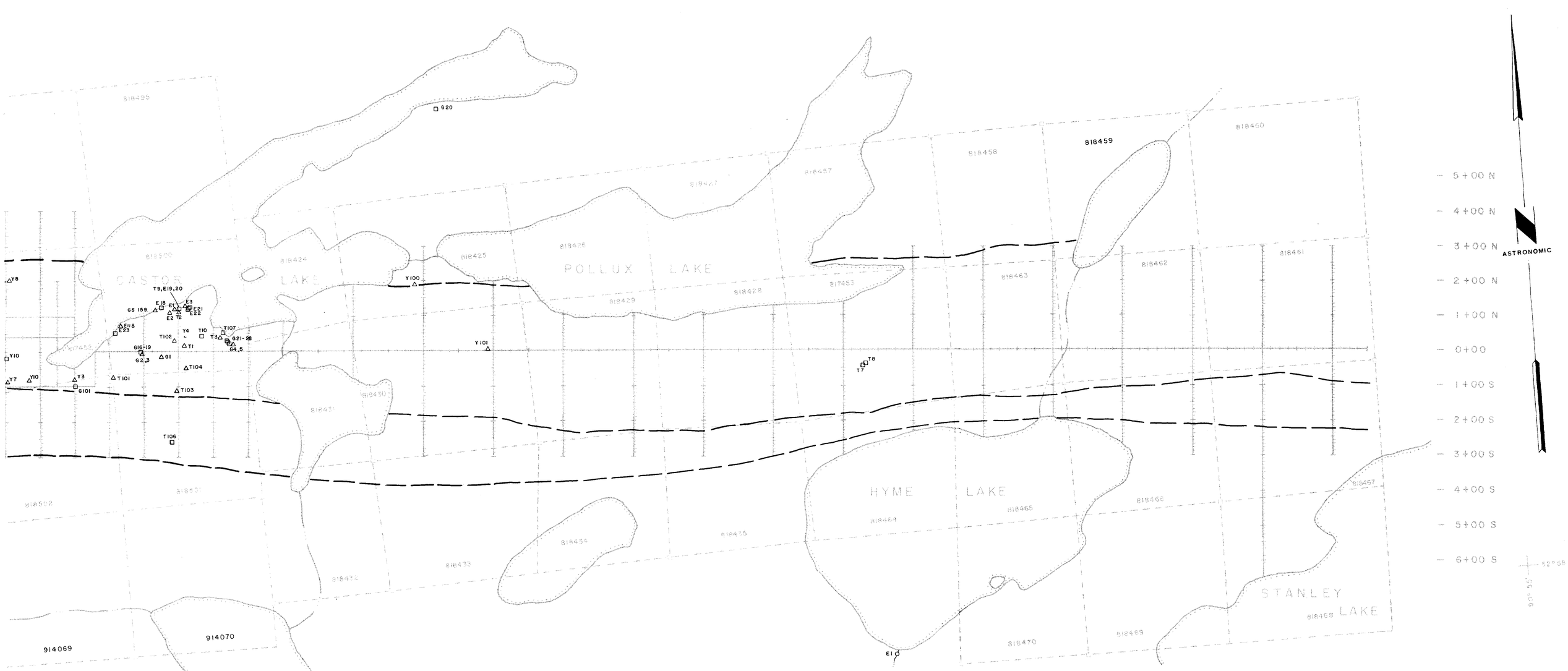






L 37+00 W
L 36+00 W
L 35+50 W
L 35+00 W
L 34+40 W
L 34+00 W
L 33+00 W
L 32+00 W
L 31+00 W
L 30+00 W
L 29+00 W
L 27+00 W
L 25+00 W
L 23+00 W
L 21+00 W
L 19+00 W
L 17+00 W
L 15+00 W
L 13+00 W
L 11+00 W
L 9+00 W
L 7+00 W
L 5+00 W
L 3+00 W
L 1+00 W
L 1+00 E

90° 56'
52° 58'



BB & CP
"B" "B1"

LEGEND

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- Δ^{T12} SOIL SAMPLE LOCATION AND NUMBER
- $\square^{65}$ ROCK SAMPLE LOCATION AND NUMBER
- $\odot^{E1}$ STREAM SEDIMENT SAMPLE LOCATION AND NUMBER
- $\vdash^{Y3}$ CHANNEL SAMPLE LOCATION AND NUMBER
- STRIPPED AREA
- TRENCH OR PIT
- APPROXIMATE GEOLOGIC CONTACT

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

SAMPLE LOCATION MAP

NTS 53 B/15 SEESEEP LAKE G-2204

SCALE 1: 5000

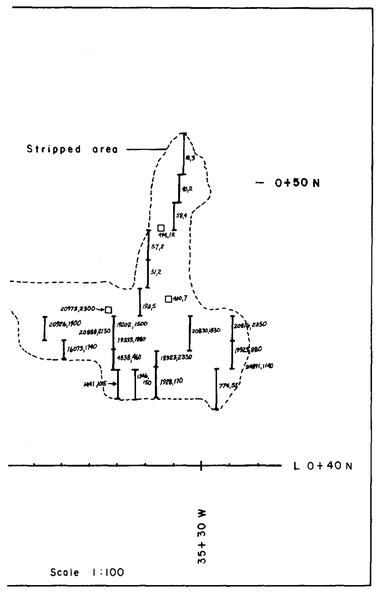
metres 100 50 0 100 200 300 400 500 600 metres

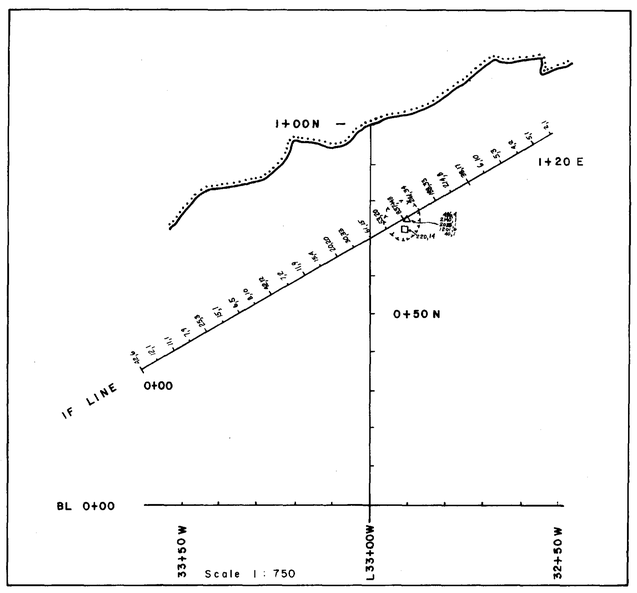
feet 500 250 0 500 1000 1500 2000 2500 feet

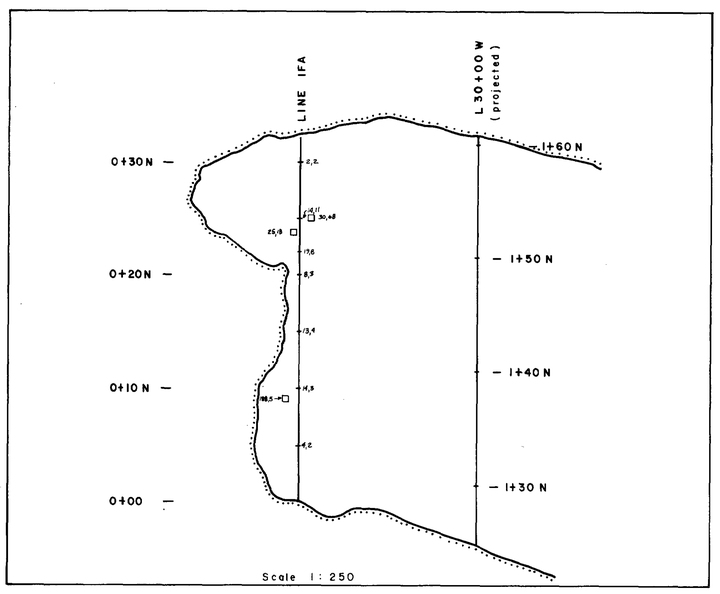
2 10627

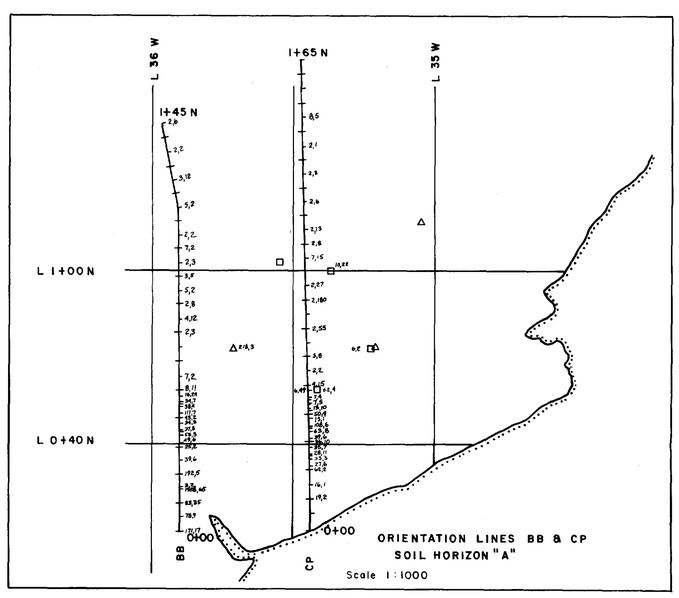
JUNE 1987
JULY – SEPTEMBER 1985

PLATE 8









LEGEND

- MUSKEG
- SWAMP
- CREEK
- CLAIM CORNER & LINES
- 816694 CLAIM NUMBER
- CUT GRID LINES (10 metre stations)
- SOIL SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- ROCK SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- STREAM SEDIMENT SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- CHANNEL SAMPLE LOCATION WITH As IN ppm AND Au IN ppb
- STRIPPED AREA
- TRENCH OR PIT

1987 DETAILED SAMPLING

CO-ORDINATE	ARSENIC IN PPM	GOLD IN PPB
ROCKS		
L 32 0+20N R1	265	810
L 32 0+20N R2	263	17
L 32 0+19N R1	2635	195
L 32 0+19N R2	471	56
L 32 0+10N	144	13
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L 31+50 0+19N R	162	26
L 31 0+20N R	5316	112
L 30+70 0+20N R	966	185
L 30+50 0+20NR	373	53
SOILS		
L 32 0+20N B	1590	32
L 32 0+19N B	3271	135
L 32 0+11N B	115	21
L 32 0+10N B	187	20
L 32 0+09N B	127	12
L 32 0+08N B	121	14
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L 31+90 0+20NB	3179	590
L 31+90 0+19NB	1079	36
L 31+90 0+18NB	2756	57
L 31+50 0+20NB	777	88
L 31+50 0+19NB	1506	98
L 31 0+20NB	14265	820

ONTARIO GOLD JOINT VENTURE

NORTHERN DYNASTY EXPLORATIONS LTD.

CASTOR LAKE CLAIM BLOCK

As,Au GEOCHEMISTRY

NTS 53 B/15 SEESEEP LAKE G-2204

SCALE 1:5000

metres 100 50 0 100 200 300 400 500 600 metres

feet 500 250 0 500 1000 1500 2000 2500 feet

210629

JUNE 1987
JULY – SEPTEMBER 1985

PLATE 9